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# FRESNO COUNTY SHERIFF AREA 2 SUBSTATION STORAGE BLDG DATA CENTER & ELECTRICAL ROOM REVISIONS BID PACKAGE 2 1129 NORTH ARMSTRONG AVENUE FRESNO, CA 93727

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**PROJECT DATA**

- PROJECT TITLE:  
FRESNO COUNTY SHERIFF AREA 2 SUBSTATION  
1.1. SUBSTATION BLDG  
1.2. STORAGE BLDG
- PROJECT ADDRESS:  
1129 N ARMSTRONG AVE  
FRESNO, CA 93727
- APN:  
310-133-04, 05, 06T
- VOLUNTARY MERGER (VM) NO.  
2083
- ZONING: IL/UGM/cz
- SITE AREA: 283,080 SF (6.50 AC)
- SUBSTATION BLDG  
7.1. BLDG AREA: 22,700 SF  
7.2. OCCUPANCY: A-3, B w/ A-2 AND S-1 ACCESSORY  
7.3. CONSTRUCTION: IIB – SPRINKLERED  
7.4. OCCUPANTS: 646
- STORAGE BLDG  
8.1. BLDG AREA: 35,520 SF  
8.2. OCCUPANCY: S-2  
8.3. CONSTRUCTION: IIB – SPRINKLERED  
8.4. OCCUPANTS: 116
- SITE COVERAGE: 20.6%
- BUILDING CODE:  
2019 CALIFORNIA BUILDING CODE
- ESSENTIAL SERVICES BUILDINGS PER 2019 CAC, CHPT 4, ARTICLE 1

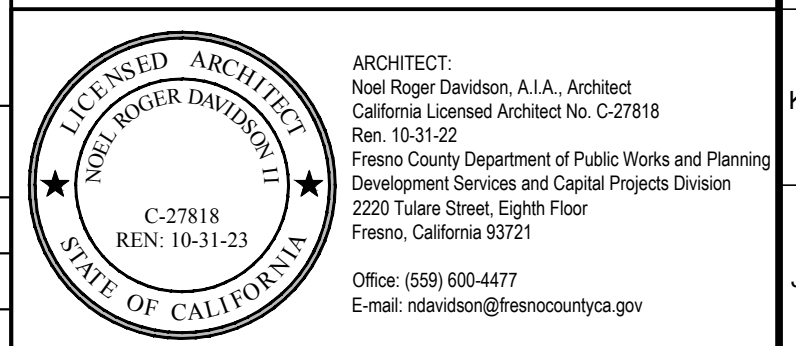
**SYMBOLS LEGEND**

A1	TITLE	DETAIL NUMBER, SHEET NUMBER AND TITLE
A2.3	SCALE	
	SOUTH	EXTERIOR ELEVATION ARROW
	A	SECTION CUT
	B2	DETAIL CUT
	C3	DETAIL AREA
	2	GRID LINES AND SYMBOLS
	8'-0"	CENTERLINE FACE OF STUD UNO DIMENSION LINE
		CENTER LINE
		HIDDEN LINE
		ELEVATION LINE
		CUT LINE
		PROPERTY LINE
	1	WALL TYPE SYMBOL SEE "WALL LEGEND"
	1	DOOR SYMBOL SEE SHEET A4.1
	A	WINDOW / FRAME SYMBOL SEE DETAIL N1/A4.1
	1	INTERIOR ELEVATION SEE DETAIL A17/A5.1

**DEFERED SUBMITTALS**

- CLEAN AGENT FIRE SUPPRESSION SYSTEM AT DATA CENTER BY CONTRACTOR. CONTRACTOR SHALL SUBMIT PLANS TO FRESNO FIRE FOR SEPARATE PERMIT. COPY OF PERMIT SHALL BE DELIVERED TO ARCHITECT FOR DELIVERY TO FRESNO COUNTY DEVELOPMENT SERVICES.
- PARKING LOT SHADE CANOPIES BY CONTRACTOR. CONTRACTOR SHALL SUBMIT PLANS TO FRESNO COUNTY DEVELOPMENT SERVICES FOR SEPARATE PERMIT. COPY OF PERMIT SHALL BE DELIVERED WITH APPROVED DRAWINGS TO ARCHITECT.

**VICINITY MAP**



**Project:**  
Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
1129 N. Armstrong Ave., Fresno, CA 93727  
APN: 310-133-04, -05, and -06  
ISSUE DATE: 02.16.2022  
PROJECT NO: T80293 / 19003.03  
FILE NAME: 19003-03\_A0-1\_Cover

**Sheet Content:**  
COVER



**Sheet No.**  
**A0.1**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
EXISTING CONDITIONS						ABBREVIATIONS												GENERAL NOTES															
<p>1. BEFORE ANY WORK IS STARTED, THE CONTRACTOR SHALL VERIFY THE LOCATION AND SIZE OF ANY EXISTING UTILITY SERVING OR BEING PART OF THE SITE AND/OR BUILDING; BE IT ELECTRICAL, PLUMBING, TELEPHONE, ETC; BE IT OVERHEAD, SUBSURFACE, OR IN CONCRETE SLAB. WHETHER IT IS SCHEDULED TO BE REMOVED OR WILL REMAIN, ALL POSSIBLE CARE SHALL BE EXERCISED BY THE CONTRACTOR TO INSURE THAT ANY SAID UTILITY WILL NOT BE THE CAUSE OF ENDANGERING THE LIFE OR LIMB OF ANY PERSON.</p> <p>2. VERIFICATION SHALL BE MADE FROM AVAILABLE SOURCES TO THE CONTRACTOR SUCH AS, BUT NOT LIMITED TO, UTILITY COMPANIES, PLANS OF EXISTING BUILDINGS, THE CONTRACT DOCUMENTS, THE OWNER, SITE INVESTIGATION, ETC. UPON VERIFICATION OF LOCATION AND/OR DISCOVERING ANY DISCREPANCIES BETWEEN DRAWINGS WHICH INDICATE EXISTING UTILITIES AND THAT OF ACTUAL ON-SITE CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND AWAIT FURTHER INSTRUCTIONS.</p>						<p>AB ANCHOR BOLT</p> <p>AC ASPHALTIC CONCRETE</p> <p>ACC ACCESSIBLE, ACCESSIBILITY</p> <p>AD AREA DRAIN</p> <p>ADD'L ADDITIONAL</p> <p>ALUM ALUMINUM</p> <p>ANOD ANODIZED</p> <p>APPROX APPROXIMATE</p> <p>ARCH ARCHITECT(URAL)</p> <p>AUTO AUTOMATIC</p> <p>AVE AVENUE</p> <p>BD BOARD</p> <p>BLDG BUILDING</p> <p>BLK BLOCK</p> <p>BLK'G BLOCKING</p> <p>BM BEAM</p> <p>BRG BEARING</p> <p>BTM BOTTOM</p> <p>BTU BRITISH THERMAL UNIT</p> <p>C-C CENTER TO CENTER</p> <p>CAB CABINET</p> <p>CBC CALIFORNIA BUILDING CODE</p> <p>CFCI CONTRACTOR FURNISHED, CONTRACTOR INSTALLED</p> <p>CI CAST IRON</p> <p>CJ CONTROL JOINT</p> <p>C/L CENTER LINE</p> <p>CLNG CEILING</p> <p>CLR CLEAR(ANCE)</p> <p>CO CLEANOUT</p> <p>COL COLUMN</p> <p>CONC CONCRETE</p> <p>CONT CONTINUOUS</p> <p>CORR CORRIDOR</p> <p>CW COLD WATER</p> <p>D DRYER</p> <p>DBL DOUBLE</p> <p>DEPT DEPARTMENT</p> <p>DF DOUGLAS FIR</p> <p>DF DRINKING FOUNTAIN</p> <p>DIA DIAMETER</p> <p>DIAG DIAGONAL</p> <p>DIM DIMENSION</p> <p>DL DEAD LOAD</p> <p>DR DOOR</p> <p>DS DOWNSPOUT</p> <p>DTL DETAIL</p> <p>DW DISHWASHER</p> <p>DWG DRAWING</p> <p>EA EACH</p> <p>EJ EXPANSION JOINT</p> <p>ELEC ELECTRICAL</p> <p>ELEV ELEVATION / ELEVATOR</p> <p>EN EDGE NAILING</p> <p>ENGR ENGINEER</p> <p>ENGR'G ENGINEERING</p> <p>EST ESTIMATE</p> <p>(E), EXIST EXISTING</p> <p>EXP EXPANSION</p> <p>EXT EXTERIOR</p> <p>FA FIRE ALARM</p> <p>FAU FORCED AIR UNIT</p> <p>FD FLOOR DRAIN</p> <p>FEB FIRE EXTINGUISHER BRACKET</p> <p>FEC FIRE EXTINGUISHER CABINET</p> <p>FF FINISH FLOOR</p> <p>FHC FIRE HOSE CABINET</p> <p>FIN FINISH</p> <p>FIXT FIXTURE</p> <p>FL FLOW LINE</p> <p>FLASH'G FLASHING</p> <p>FLR FLOOR</p> <p>FLR'G FLOORING</p> <p>FLUOR FLUORESCENT</p> <p>FNDN FOUNDATION</p> <p>FOC FACE OF CONCRETE</p> <p>FOF FACE OF FINISH</p> <p>FOM FACE OF MASONRY</p> <p>FOS FACE OF STUD(S)</p> <p>FS FULL SIZE</p> <p>FT FOOT OR FEET</p>	<p>FTG FOOTING</p> <p>GA GAUGE</p> <p>GALV GALVANIZED</p> <p>GC GENERAL CONTRACTOR</p> <p>GLU-LAM GLUE-LAMINATED</p> <p>GSM GALVANIZED SHEET METAL</p> <p>GYP BD GYPSUM WALLBOARD</p> <p>HB HOSE BIBB</p> <p>HC HOLLOW CORE</p> <p>HM HOLLOW METAL</p> <p>HORIZ HORIZONTAL</p> <p>HR AVENUE</p> <p>HRDW HARDWARE</p> <p>HT HEIGHT</p> <p>HVAC HEATING, VENTILATION &amp; AIR CONDITIONING</p> <p>HW HOT WATER</p> <p>ID INSIDE DIAMETER</p> <p>ICC INTERNATIONAL CODE COUNCIL</p> <p>IN INCH</p> <p>INCL INCLUDE(D)</p> <p>INT INTERIOR</p> <p>ISA INTERNATIONAL SYMBOL OF ACCESSIBILITY</p> <p>LAM LAMINATED</p> <p>LAV LAVATORY</p> <p>LL LIVE LOAD</p> <p>LT LIGHT</p> <p>MAT'L MATERIAL</p> <p>MAX MAXIMUM</p> <p>MB MACHINE BOLT</p> <p>MDF MEDIUM DENSITY FIBERBOARD</p> <p>MECH MECHANICAL</p> <p>MEMB MEMBRANE</p> <p>MFR MANUFACTURE(R)</p> <p>MIN MINIMUM</p> <p>MIRR MIRROR(ED)</p> <p>MISC MISCELLANEOUS</p> <p>MTD MOUNTED</p> <p>MTL METAL</p> <p>NIC NOT IN CONTRACT</p> <p>NO NUMBER</p> <p>NR NOT RATED</p> <p>NRC NOISE REDUCTION COEFFICIENT</p> <p>NTE NOT TO EXCEED</p> <p>NTS NOT TO SCALE</p> <p>O/ OVER</p> <p>O.C. ON CENTER</p> <p>OD OUTSIDE DIAMETER</p> <p>OFCI OWNER FURNISHED, CONTRACTOR INSTALLED</p> <p>OH OVERHANG</p> <p>OPN'G OPENING</p> <p>OPP OPPOSITE</p> <p>PEN PLYWOOD EDGE NAILING</p> <p>PH PANIC HARDWARE</p> <p>PL PLATE</p> <p>PLAM PLASTIC LAMINATE</p> <p>PLAS PLASTIC</p> <p>PLF POUNDS PER LINEAL FOOT</p> <p>PLY PLYWOOD</p> <p>PR PAIR</p> <p>PREFAB PREFABRICATED</p> <p>PSF POUNDS PER SQUARE FOOT</p> <p>PSI POUNDS PER SQUARE INCH</p> <p>PT PRESSURE TREATED</p> <p>RA RETURN AIR</p> <p>RAD RADIUS</p> <p>RD ROOF DRAIN</p> <p>REF REFRIGERATOR</p> <p>REINF REINFORCED, REINFORCING</p> <p>REQD REQUIRED</p> <p>RM ROOM</p> <p>RO ROUGH OPENING</p> <p>ROW RIGHT-OF-WAY</p> <p>RWD REDWOOD</p> <p>SA SUPPLY AIR</p> <p>SAWPM SELF-ADHESIVE WATERPROOF MEMBRANE</p> <p>SC SOLID CORE</p> <p>SCHED SCHEDULE</p> <p>SD STORM DRAIN</p>	<p>SF STOREFRONT</p> <p>SH SHELF</p> <p>SHT SHEET</p> <p>SHT'G SHEATHING</p> <p>SIM SIMILAR</p> <p>SMS SHEET METAL SCREEN</p> <p>SOV SHUT-OFF VALVE</p> <p>SPEC SPECIFICATION</p> <p>SG SQUARE</p> <p>SS STAINLESS STEEL</p> <p>STC SOUND TRANSMISSION CLASS</p> <p>STD STANDARD</p> <p>STL STEEL</p> <p>STOR STORAGE</p> <p>STRUCT STRUCTURAL</p> <p>STMS SELF-TAPPING (DRILLING)</p> <p>SUSP SUSPENDED</p> <p>SYM SYMMETRICAL</p> <p>T&amp;G TONGUE AND GROOVE</p> <p>TEMP GL TEMPERED GLASS</p> <p>THK THICK(NESS)</p> <p>THRU THROUGH</p> <p>TI TENANT IMPROVEMENT</p> <p>TOB TOP OF BEAM</p> <p>TOC TOP OF CURB</p> <p>TOF TOP OF FOOTING</p> <p>TOG TOP OF GRADE</p> <p>TOP TOP OF PAVEMENT</p> <p>TOPL TOP OF PLATE</p> <p>TOS TOP OF SLAB</p> <p>TOW TOP OF WALL</p> <p>TV TELEVISION</p> <p>TYP TYPICAL</p> <p>UE UTILITY EASEMENT</p> <p>UNO UNLESS NOTED OTHERWISE</p> <p>UR URINAL</p> <p>VERT VERTICAL</p> <p>VG VERTICAL GRAIN</p> <p>VT VINYL TILE</p> <p>VTR VENT THROUGH ROOF</p> <p>W WASHER</p> <p>W/ WITH</p> <p>WC WATER CLOSET</p> <p>WD WOOD</p> <p>WH WATER HEATER</p> <p>WI WROUGHT IRON</p> <p>WNO WINDOW</p> <p>W/O WITHOUT</p> <p>WT WEIGHT</p> <p>WWM WIRE WELDED MESH</p> <p>YD YARD</p>	<p>1. ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED BY THE LOCAL BUILDING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1.1. 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC)</p> <p>1.2. 2019 CALIFORNIA BUILDING CODE (CBC)</p> <p>1.3. 2019 CALIFORNIA ELECTRICAL CODE (CEC)</p> <p>1.4. 2019 CALIFORNIA MECHANICAL CODE (CMC)</p> <p>1.5. 2019 CALIFORNIA PLUMBING CODE (CPC)</p> <p>1.6. 2019 CALIFORNIA ENERGY CODE (CEC) AND THE LATEST NONRESIDENTIAL CEC ENERGY STANDARDS.</p> <p>1.7. 2019 CALIFORNIA FIRE CODE (CFC) AND THE MOST RECENT EDITION OF NFPA AS APPLICABLE.</p> <p>1.8. 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC)</p> <p>1.9. COUNTY OF FRESNO ORDINANCE CODE, TITLE 15</p> <p>2. THE GENERAL CONTRACTOR SHALL STRICTLY OBSERVE ALL CODES HAVING JURISDICTION IN THE CONSTRUCTION OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, ALL APPLICABLE FEDERAL, STATE, COUNTY, CITY OR GOVERNING AGENCIES, ZONING CODES, PLANNING CODE, BUILDING CODE, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, FIRE CODE OR ANY OTHER CODES, RULES, REGULATIONS AND/OR AMENDMENTS. THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTORS SHALL VERIFY ALL CODE REQUIREMENTS BEFORE COMMENCEMENT OF CONSTRUCTION AND BRING ANY DISCREPANCIES BETWEEN CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT. ICC APPROVED NUMBERS ARE CITED THROUGHOUT THESE NOTES AS A STANDARD. MATERIALS REQUIRING OTHER JURISDICTIONAL APPROVALS MUST BE PROVIDED.</p> <p>3. THIS IS A BUILDER SET OF DRAWINGS PREPARED TO A LEVEL OF COMPLETION SATISFACTORY FOR BUILDING PERMIT PURPOSES AT THE TIME OF THEIR PREPARATION AND FOR CONSTRUCTION BY A KNOWLEDGEABLE AND EXPERIENCED BUILDER FAMILIAR WITH THIS TYPE OF WORK. SUCH DOCUMENTS WILL REQUIRE PREPARATION AND SUPPLEMENTAL DETAILS, PRODUCT SPECIFICATIONS AND ELABORATION AND INTERPRETATION BY EXPERIENCED CONTRACTORS, SUB-CONTRACTORS AND OWNER'S INDEPENDENT CONSULTANTS.</p> <p>4. ALL CONTRACTORS, SUBCONTRACTORS, VENDORS AND MATERIAL SUPPLIERS SHALL BE RESPONSIBLE FOR REVIEWING THE COMPLETE SET OF DOCUMENTS AS SHOWN IN THE SHEET INDEX. FAILURE TO REVIEW DOCUMENTS WILL NOT RELIEVE ANY CONTRACTORS, SUB-CONTRACTORS, VENDORS OR MATERIAL SUPPLIERS FROM PERFORMING WORK OR PROVIDING MATERIALS REQUIRED FOR THE COMPLETION OF THIS PROJECT AS DEFINED WITHIN THE DOCUMENTS AT TIME OF BID.</p> <p>5. THE ARCHITECT DOES NOT GUARANTEE THE GENERAL CONTRACTOR'S AND/OR SUB-CONTRACTOR'S PERFORMANCE AND NO PROVISIONS OF THE CONTRACT DOCUMENTS SHALL RELIEVE THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTOR FROM ANY LIABILITY DUE TO GENERAL CONTRACTOR'S AND/OR SUB-CONTRACTOR'S PERFORMANCE, INCOMPLETE WORK OR ERRORS OF OMISSION.</p> <p>6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ACTIONS OF HIS SUPERINTENDENTS AND SUBCONTRACTORS DURING THE COURSE OF ANY WORK OCCURRING ON THE SITE. THE CONTRACTOR SHALL TAKE ALL RESPONSIBILITY FOR HIS SUBCONTRACTORS AND SHALL NOT ALLOW THEM TO WORK ON, PLACE DEBRIS ON, STORE SUPPLIES OR EQUIPMENT ON, OR IN ANY OTHER WAY ENCROACH UPON ANY OTHER PROPERTIES WITHOUT THE WRITTEN PERMISSION OF SUCH PROPERTY OWNERS.</p> <p>7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTING DATA PRIOR TO COMMENCEMENT OF ANY WORK.</p> <p>8. THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS AT THE JOB SITE SUFFICIENTLY IN ADVANCE OF WORK TO BE PERFORMED TO ASSURE THE ORDERLY PROGRESS OF THE WORK. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT EACH SUB-CONTRACTOR PERFORMS THE WORK IN ACCORDANCE WITH ALL CODES IN A TIMELY MANNER TO FACILITATE COORDINATION WITH OTHER SUB-CONTRACTORS.</p>	<p>9. GENERAL CONTRACTOR SHALL COORDINATE WORK PERFORMED BY OTHER CONTRACTORS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE OWNER'S ATTENTION BEFORE PROCEEDING WITH WORK.</p> <p>10. THE CONTRACTOR SHALL PROVIDE DUST CONTROL AND INTERIM CLEANUP FOR THIS PROJECT DURING ALL PHASES OF THE WORK.</p> <p>11. EACH CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, CLEAN AND ORDERLY CONDITION UPON THE COMPLETION OF HIS WORK ON A DAILY BASIS. AREA OF WORK TO BE DUSTED, SWEPT AND MOPPED TO SAME CONDITION AS START OF WORK. ALL WASTE, RUBBISH AND EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE PROMPTLY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TRASH, INCLUDING TRASH GENERATED FROM THE OWNER FURNISHED ITEMS AND BY OWNER'S CONTRACTORS FOR THE DURATION OF THE PROJECT.</p> <p>12. THE GENERAL CONTRACTOR SHALL PROVIDE ADEQUATE FIRE PROTECTION FOR THE AREA UNDER CONSTRUCTION FOR THE DURATION OF THE WORK.</p> <p>13. THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY ENCLOSURES FOR PROTECTION OF EXISTING BUILDING AND CONSTRUCTION, IN PROGRESS AND COMPLETED, FROM UNAUTHORIZED ACCESS INTO BUILDING, EXPOSURE TO FOUL WEATHER, OTHER CONSTRUCTION OPERATIONS, AND SIMILAR ACTIVITIES. PROVIDE TEMPORARY WEATHER-TIGHT ENCLOSURE FOR BUILDING EXTERIOR.</p> <p>14. WHERE REQUIRED, THE GENERAL CONTRACTOR SHALL PROVIDE SAMPLES FOR APPROVAL BY THE ARCHITECT/OWNER.</p> <p>15. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL PRODUCTS AND THEIR COMPLIANCE W/ APPLICABLE CODES AND COUNTY REQUIREMENTS. ALL PRODUCTS SHALL BE NEW, UNLESS NOTED OTHERWISE, AND APPROPRIATE FOR THE INTENDED USE.</p> <p>16. WHEN THE CONTRACTOR ACCEPTS DELIVERY OF ALL ITEMS NOTED ON PLANS WHETHER IN CONTRACT OR NOT IN CONTRACT, HE SHALL BE RESPONSIBLE FOR LOSS AND/OR DAMAGE TO THESE ITEMS.</p> <p>17. THESE PLANS AND RELATED DOCUMENTS SHALL BE KEPT AT THE SITE OF WORK AND SHALL BE OPEN TO INSPECTION BY THE BUILDING OFFICIAL OR A DULY AUTHORIZED REPRESENTATIVE. 2019 CBC, SECTION 1073.1.</p> <p>18. THIS PERMIT DOES NOT INCLUDE ANY HIGH-PILE STORAGE (PER CFC) OR RACK STORAGE OVER 8 FEET IN HEIGHT. ANY SUCH PROPOSED STORAGE WILL REQUIRE SUBMITTAL OF PLANS AND APPLICATION FOR PERMIT(S). 2019 CFC, CHAPTER 32.</p> <p>19. STREET ADDRESS AND NUMBER SHALL BE POSTED PRIOR TO THE FIRST INSPECTION.</p> <p>20. IF NOT EXISTING, PROVIDE 12" MINIMUM HIGH ADDRESS POSTING VISIBLE FROM THE STREET.</p> <p>21. PRIOR TO A BUILDING FINAL INSPECTION, AN APPLIANCE CERTIFICATE PROVIDED BY THE APPLIANCE MANUFACTURER MUST BE COMPLETED BY THE INSTALLER OR GENERAL CONTRACTOR AND POSTED IN A CONSPICUOUS LOCATION (APPLIES TO CENTRAL AIR CONDITIONERS, HEATERS, AND WATER HEATERS).</p> <p>22. THE BUILDER SHALL PROVIDE THE CLIENT WITH WARRANTY AND OPERATIONAL INSTRUCTION ON ALL INSTALLED HEATING, COOLING LIGHTING SYSTEMS AND APPLIANCES.</p> <p>23. CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE DESIGNER AND SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL. 2019 CBC 1071.4</p> <p>24. TOILET FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A SANITARY CONDITION FOR THE USE OF WORKERS DURING CONSTRUCTION. 2019 CPC 422.5</p> <p>25. THE CONSTRUCTION WASTE MANAGEMENT PLAN MUST BE FINALIZED PRIOR TO OCCUPANCY.</p> <p>26. ALL NEW BUILDINGS SHALL COMPLY WITH EMERGENCY RESPONDER RADIO COVERAGE PER 2019 CFC SECTION 510. PROVIDE TEST DOCUMENTS CONFIRMING THAT THE BUILDING MEETS THE REQUIREMENTS OF CFC 510 OR INSTALL AN EMERGENCY RESPONDER RADIO COVERAGE SYSTEM (WITH APPROPRIATE PLAN REVIEW, APPROVAL AND TESTING). THIS SHALL OCCUR PRIOR TO BUILDING PERMIT FINAL.</p>																							



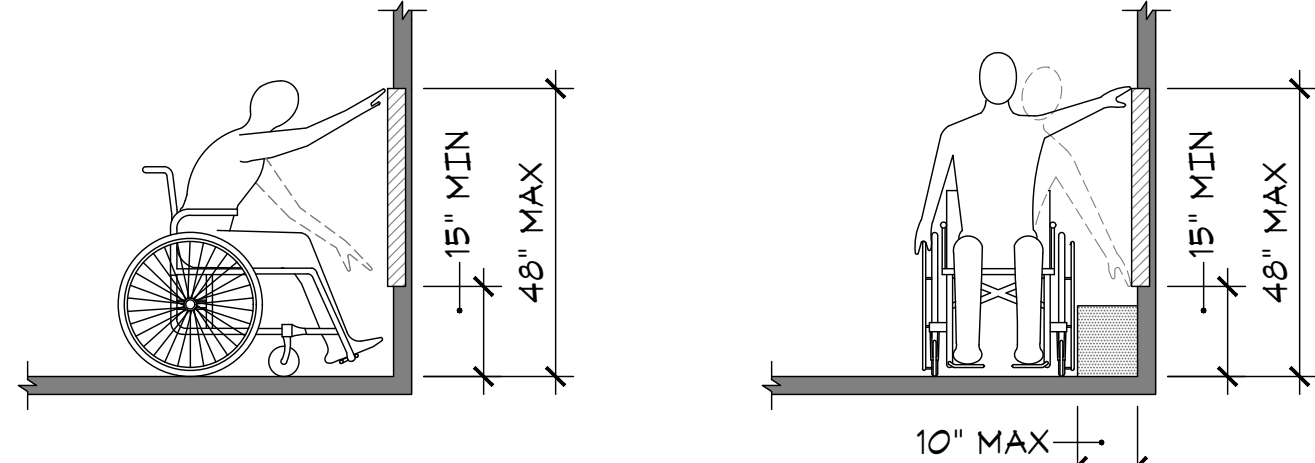
**Project:**  
 Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04-.05, and -.06  
 ISSUE DATE: 02.11.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A0-2\_Notes

**Sheet Content:**  
 NOTES

Fresno County Department of Public Works and Planning  
 Capital Projects  
 2220 Tulare Street, 8th Floor  
 Fresno, California 93721

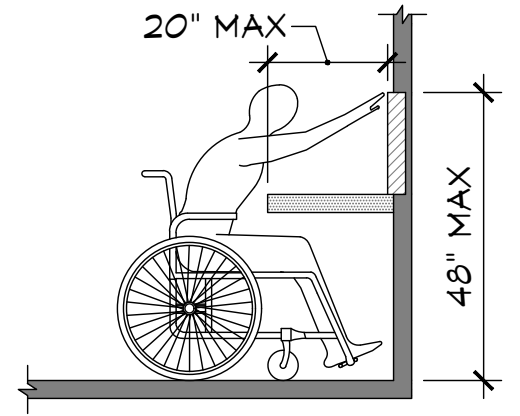
**Sheet No.**  
 A0.2

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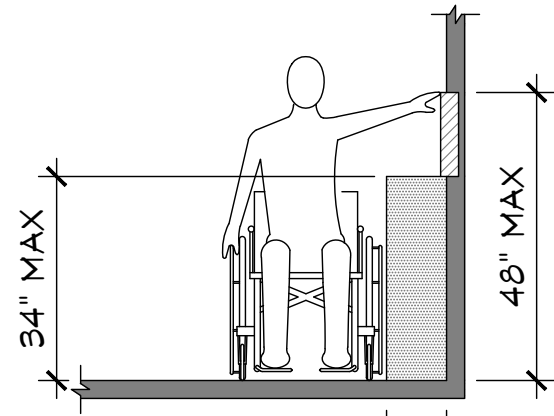


UNOBSTRUCTED FORWARD REACH  
FIGURE 11B-308.2.1

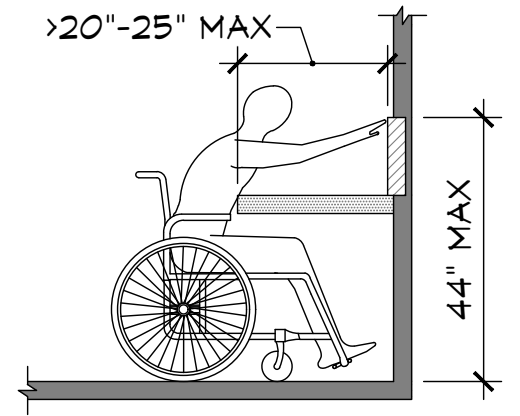
UNOBSTRUCTED SIDE REACH  
FIGURE 11B-308.3.1



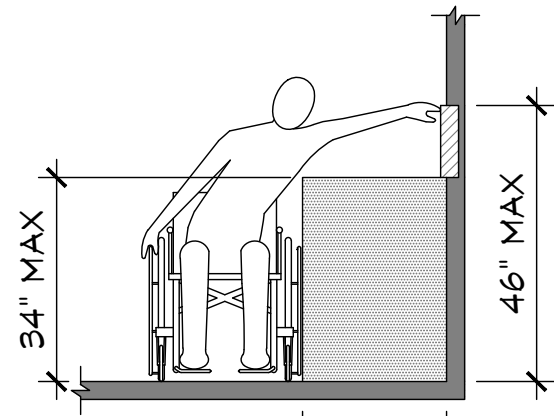
OBSTRUCTED HIGH FORWARD REACH  
FIGURE 11B-308.2.2 (a)



OBSTRUCTED HIGH SIDE REACH  
FIGURE 11B-308.3.2 (a)



OBSTRUCTED HIGH FORWARD REACH  
FIGURE 11B-308.2.2 (b)



OBSTRUCTED HIGH SIDE REACH  
FIGURE 11B-308.3.2 (b)

**L9 ACCESSIBLE REACH RANGES**  
A0.3 SCALE: NONE

**FIRE PROTECTION NOTES**

1. THE TENANT SPACE SHALL BE PROVIDED WITH PORTABLE FIRE EXTINGUISHERS PER NFPA 10, 2-A-10-B-C RATED MINIMUM WITH A MAXIMUM 75 FOOT TRAVEL DISTANCE AND ONE FOR EVERY 6,000 SQUARE FEET (LIGHT HAZARD) (2019 CFC, SECTION 906.3). PROVIDE SIX (6) MINIMUM MOUNTED IN ACCORDANCE WITH NFPA 10.
2. REGARDLESS OF OCCUPANT LOAD SERVED, EXIT DOORS INDICATED ON THE DRAWINGS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. PROVIDE ALL REQUIRED IDENTIFICATION SIGNS.
4. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE TO DESIGN AND INSTALL A FIRE SPRINKLER SYSTEM CONFORMING TO NFPA 13, RELATED STANDARDS, THE COUNTY OF FRESNO AND FIRE PREVENTION BUREAU REQUIREMENTS.
5. THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT PLANS TO THE ARCHITECT FOR REVIEW OF COMPATIBILITY WITH THE BUILDING DESIGN.
6. THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE SPRINKLER SYSTEM.
7. THE ALARM UNIT SHALL BE AN APPROVED, WEATHERPROOF WATER GONG WITH ONE OUTDOOR ALARM. IF ELECTRIC BELL IS USED, IT IS TO BE WIRED IN FRONT OF MAIN DISCONNECT.
8. PERFORM ALL TESTS REQUIRED BY THE LOCAL AUTHORITY FOR APPROVAL.
9. OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION (OVER THE COUNTER) FOR FIRE SPRINKLER ALARM SUPERVISION. SUPERVISION IS REQUIRED ON ALL FIRE SPRINKLER SYSTEMS WITH 7 OR MORE SPRINKLER HEADS. 2019 CFC, SECTION 903.4. INSTALLATIONS MUST ALSO COMPLY WITH FPD POLICY SECTIONS 405 AND 407. FPD POLICIES CAN BE FOUND AT: <https://www.fresno.gov/fire-training/manuals-and-forms/>
10. PROVIDE ADEQUATE WATER SUPPLY REQUIRED FOR FIRE SPRINKLER SYSTEM.
11. SUBMIT METHOD OF FIRE STOPPING TO BUILDING INSPECTOR FOR APPROVAL.
12. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE ALARM SYSTEM. SEE FPD DEVELOPMENT POLICY 401.012.
13. ALL OUTLET BOXES IN FIRE-RESISTIVE ASSEMBLIES SHALL BE RATED AND SHALL BE A MAXIMUM SIZE OF 16 SQUARE INCHES (USE STEEL ONLY FOR ASSEMBLIES RATED MORE THAN ONE-HOUR). ALL OUTLET BOXES IN FIRE-RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM OF 24 INCHES HORIZONTALLY. ELECTRICAL PANELS ARE NOT PERMITTED IN FIRE-RATED ASSEMBLIES.
14. THE GENERAL CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INTERFACES BETWEEN THE FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR AND ANY OTHER PERTINENT TRADES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXTINGUISHING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.). ALL WORK MUST REMAIN VISIBLE AND MAY NOT BE COVERED UNTIL THE REQUIRED FIRE INSPECTIONS HAVE BEEN COMPLETED BY THE FIRE DEPARTMENT.

**ARCHITECTURAL NOTES**

1. ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER OTHER DRAWINGS FOR LAYOUT, DIMENSIONS AND NUMBER OF ITEMS PROVIDED. UPON DISCOVERY OF DISCREPANCIES BETWEEN ARCHITECTURAL DRAWINGS AND ENGINEERING DRAWINGS, OWNER AND ARCHITECT SHALL BE IMMEDIATELY NOTIFIED IN WRITING.
  2. WHERE DRAWING AND SPECIFICATIONS CONFLICT, SPECIFICATIONS SHALL GOVERN.
- LAYOUT**
3. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONS GOVERN.
  4. ALL VERTICAL DIMENSIONS SHALL BE MADE FROM THE HIGHEST POINT OF THE FLOOR SLAB TO ENSURE PROPER ALIGNMENT OF ALL DOORS, BULKHEADS, ETC.
  5. ALL DRYWALL PARTITIONS ARE DIMENSIONED IN FEET AND INCHES FROM FACE OF STUD TO FACE OF STUD UNLESS NOTED OTHERWISE.
  6. LOCATE INSIDE EDGE OF ALL DOOR FRAMES 3" FROM THE ADJACENT PERPENDICULAR PARTITION UNLESS NOTED OTHERWISE.
- ACCESSIBILITY**
7. ALL DOORS SHALL BE IN ACCORDANCE WITH UFAS AND ADA. INSTALL ALL FRAMES, DOORS AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  8. OFFSETS AT ALL THRESHOLDS AND ANY CHANGE IN FLOOR MATERIAL SHALL BE A MAXIMUM OF 1/2 INCH. OFFSETS EQUAL TO OR LESS THAN 1/4 INCH MAY BE VERTICAL. OFFSETS GREATER THAN 1/4 INCH REQUIRE A MAXIMUM BEVELED SLOPE OF 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL.
  9. ELECTRICAL SWITCHES, CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL COMPLY WITH DETAIL L9/A0.3 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. (CBC 11B-308.1.1)
  10. ELECTRICAL RECEPTACLE OUTLETS, ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL COMPLY WITH DETAIL L9/A0.3 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. (CBC 11B-308.1.2)
- INSTALLATION AND FINISHES**
11. ALL FINISH MATERIALS, FIXTURES, EQUIPMENT, HARDWARE, MILLWORK AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL SUPPORT BACKING OR REINFORCEMENT OR OTHER PREPARATIONS AS REQUIRED.
  12. ALL EXPOSED EDGES AND / OR CORNERS ON ALL PAINTED DRYWALL CONSTRUCTION SHALL RECEIVE A METAL BEAD WHICH IS TO BE TAPED AND FLOATED SMOOTH.
  13. COORDINATE ALL FLOOR AND CEILING FINISHES TO ENSURE THAT JOINTS AND TRANSITIONS BETWEEN MATERIALS, WHETHER THEY BE WALL TO WALL, WALL TO FLOOR, FLOOR TO FLOOR, WALL TO CEILING, OR CEILING TO CEILING, WILL BE SMOOTH, TRUE, LEVEL AND IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND SCHEDULES.
  14. ALL INTERIOR STRIPPING, CAULKING, AND SEALING OF EXTERIOR DOORS, WINDOWS, AND BUILDING ENVELOPE OPENINGS, AS REQUIRED BY THE STANDARDS, SHALL BE SUBJECT TO FIELD INSPECTION.
  15. PROVIDE 1-HOUR RATED 3M FIRE CAULK AT ALL PENETRATIONS.
  16. AFTER INSTALLING THE INSULATION, THE INSTALLER SHALL POST IN A CONSPICUOUS LOCATION IN THE BUILDING AN INSULATION CERTIFICATE SIGNED BY THE INSTALLER AND THE BUILDER, STATING THAT THE INSULATION CONFORMS WITH THE REQUIREMENTS OF TITLE 24, PART 1 CHAPTER 10-103 OF THE CALIFORNIA ADMINISTRATIVE CODE.
  17. ALL JOINTS, PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHER-STRIPPED OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EXFILTRATION. (CEC SECTION 110.7)

- FIRE PROTECTION**
18. THE MAXIMUM FLAME-SPREAD CLASS OF FINISH MATERIALS USED ON INTERIOR WALLS AND CEILING SHALL MEET OR EXCEED THE REQUIREMENTS OF 2019 CBC SECTION 803 AND TABLE 803.11.
  19. ALL BUILDING INSULATION SHALL CONFORM TO FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF 2019 CBC SECTION 720.
  20. ALL PENETRATIONS OF FIRE RATED ASSEMBLIES (FLOORS, PARTITIONS, AND / OR CEILING) SHALL BE FIRE STOPPED TO COMPLY WITH ALL APPLICABLE CODES AND IN ACCORDANCE WITH UL STANDARDS.

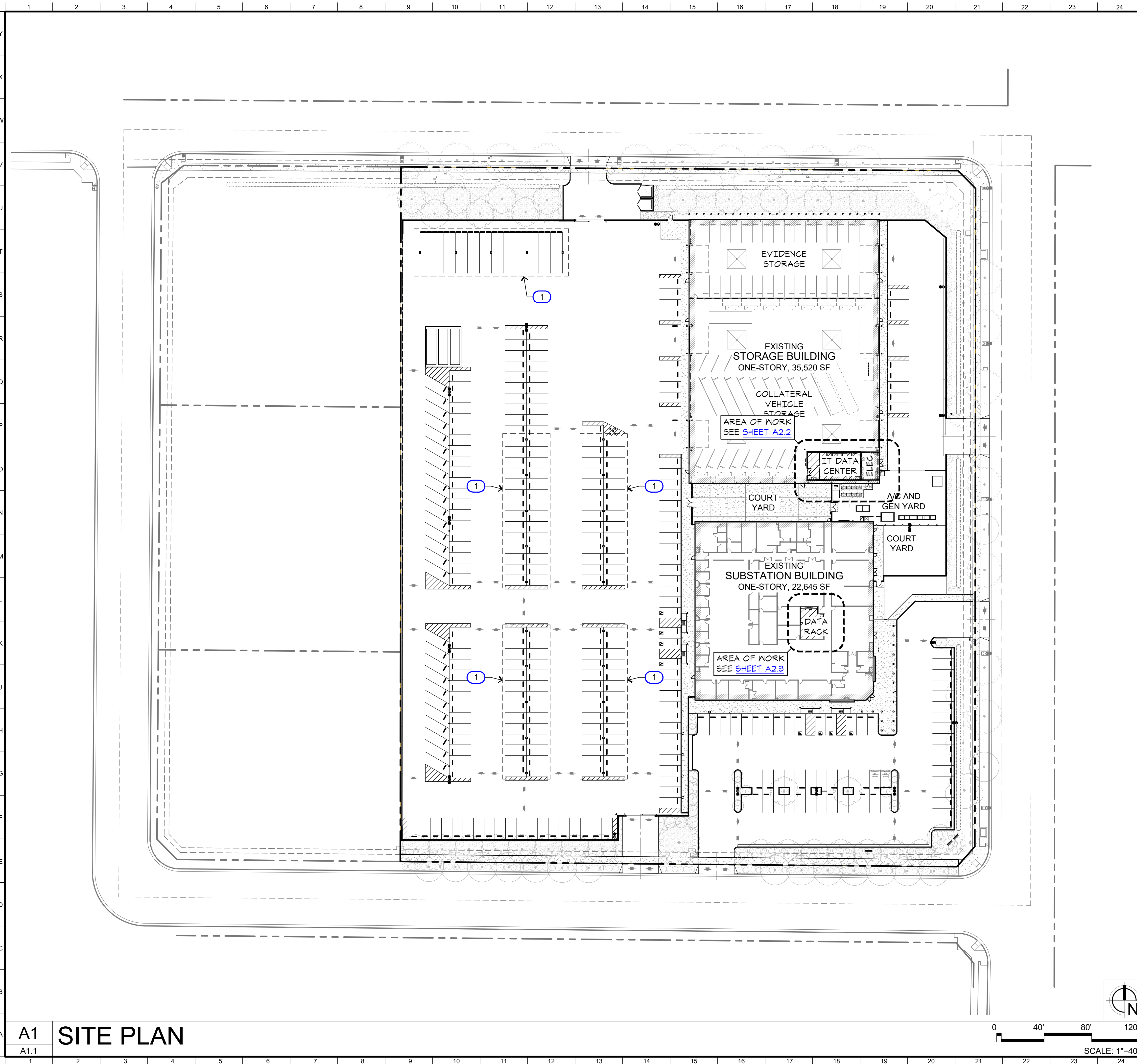


**Project:**  
Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
1129 N. Armstrong Ave., Fresno, CA 93727  
APN: 310-133-04, -05, and -06  
ISSUE DATE: 02.11.2022  
PROJECT NO: T80293 / 19003.03  
FILE NAME: 19003-03\_A0-3\_Notes

**Sheet Content:**  
NOTES

Fresno County Department of Public Works and Planning  
Capital Projects  
2220 Tulare Street, 8th Floor  
Fresno, California 93721

**Sheet No.**  
**A0.3**



**KEYNOTES LEGEND**

- 1 NEW 130'-0" X 40'-0" CANOPY W/ CENTER COLUMNS AS SHOWN. TYPICAL OF FIVE (5). SEE TYPICAL CARPORT SECTION' [DETAIL J13/A1.2](#)

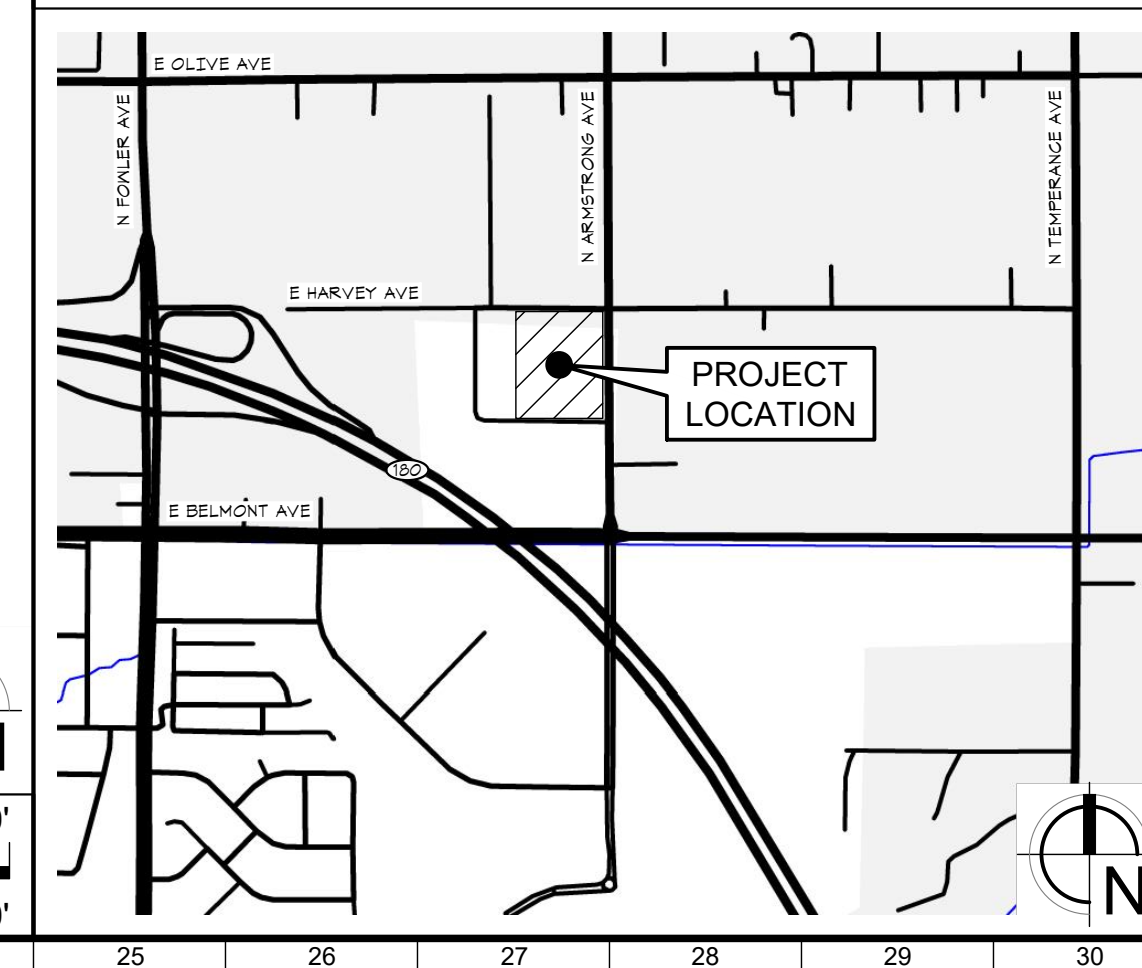
**PROJECT DATA**

1. PROJECT TITLE:  
FRESNO COUNTY SHERIFF  
AREA 2 SUBSTATION
  - 1.1. SUBSTATION BLDG
  - 1.2. STORAGE BLDG
2. PROJECT ADDRESS:  
1129 N ARMSTRONG AVE  
FRESNO, CA 93727
3. APN:  
310-133-04, 05, 06T
4. VOLUNTARY MERGER (VM) NO. 2083
5. ZONING: IL/UGM/cz
6. SITE AREA: 283,080 SF (6.50 AC)
7. SUBSTATION BLDG
  - 7.1. BLDG AREA: 22,700 SF
  - 7.2. OCCUPANCY: A-3, B w/ A-2 AND S-1 ACCESSORY
  - 7.3. CONSTRUCTION: IIB - SPRINKLERED
  - 7.4. OCCUPANTS: 646
8. STORAGE BLDG
  - 8.1. BLDG AREA: 35,520 SF
  - 8.2. OCCUPANCY: S-2
  - 8.3. CONSTRUCTION: IIB - SPRINKLERED
  - 8.4. OCCUPANTS: 116
9. SITE COVERAGE: 20.6%
10. BUILDING CODE:  
2019 CALIFORNIA BUILDING CODE
11. ESSENTIAL SERVICES BUILDINGS PER 2019 CAC, CHPT 4, ARTICLE 1
12. SEISMIC DESIGN CATEGORY D
13. COUNTY OF FRESNO  
SPR APPLICATION NO. 8156



**Project:**  
 Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
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 ISSUE DATE: 02.11.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A1-1\_Site\_Plan

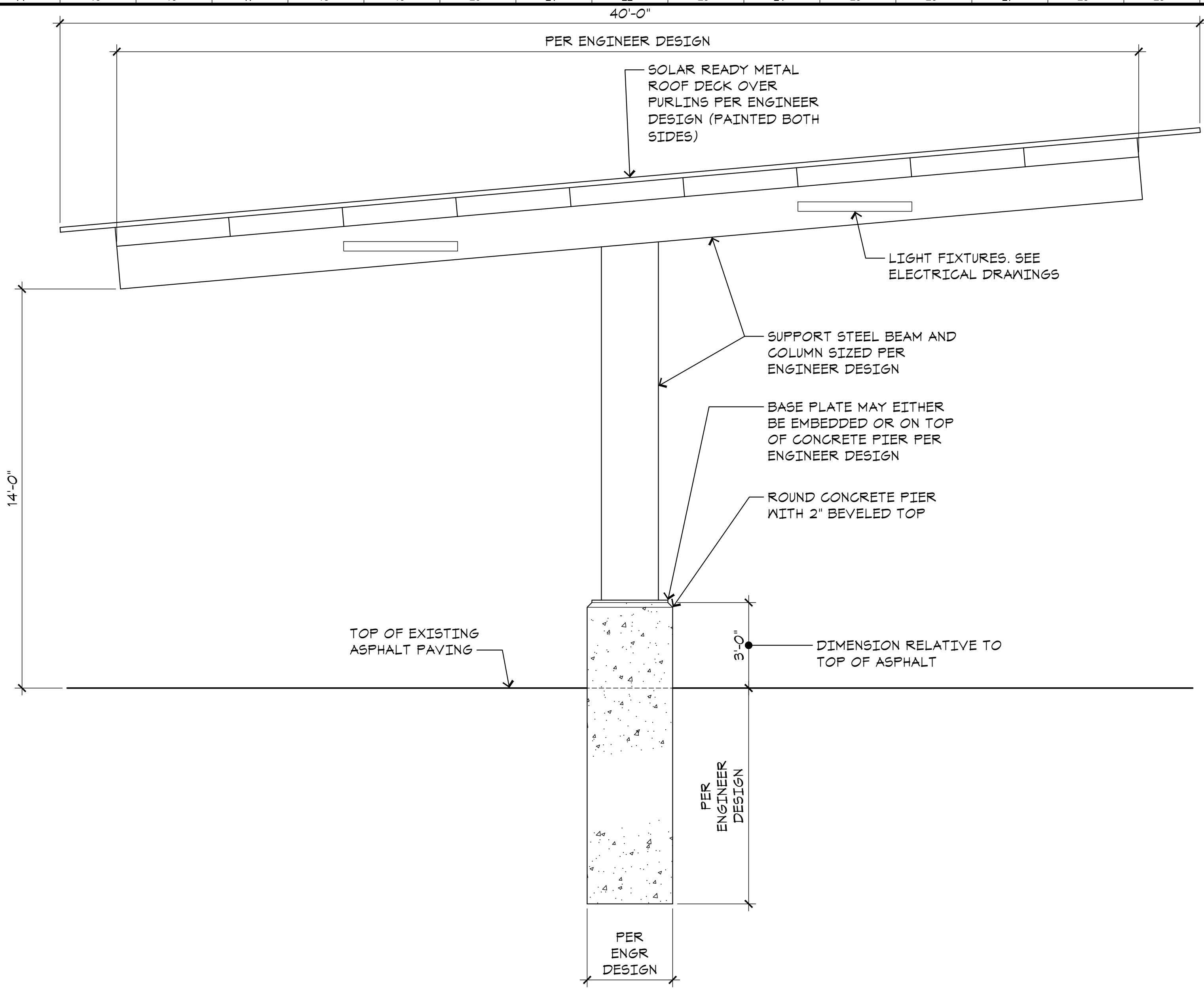
**VICINITY MAP**



**Sheet Content:**  
 SITE PLAN

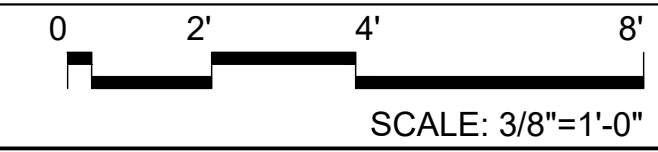


**Sheet No.**  
**A1.1**



J13  
A1.2

# TYPICAL CARPORT SECTION



**LICENSED ARCHITECT**  
NOEL ROGER DAVIDSON II  
STATE OF CALIFORNIA

ARCHITECT:  
Noel Roger Davidson, A.I.A., Architect  
California Licensed Architect No. C-27818  
Ren: 10-31-22  
Fresno County Department of Public Works and Planning  
Development Services and Capital Projects Division  
2220 Tulare Street, Eighth Floor  
Fresno, California 93721  
Office: (559) 650-4477  
E-mail: ndavidson@fresnocountyca.gov

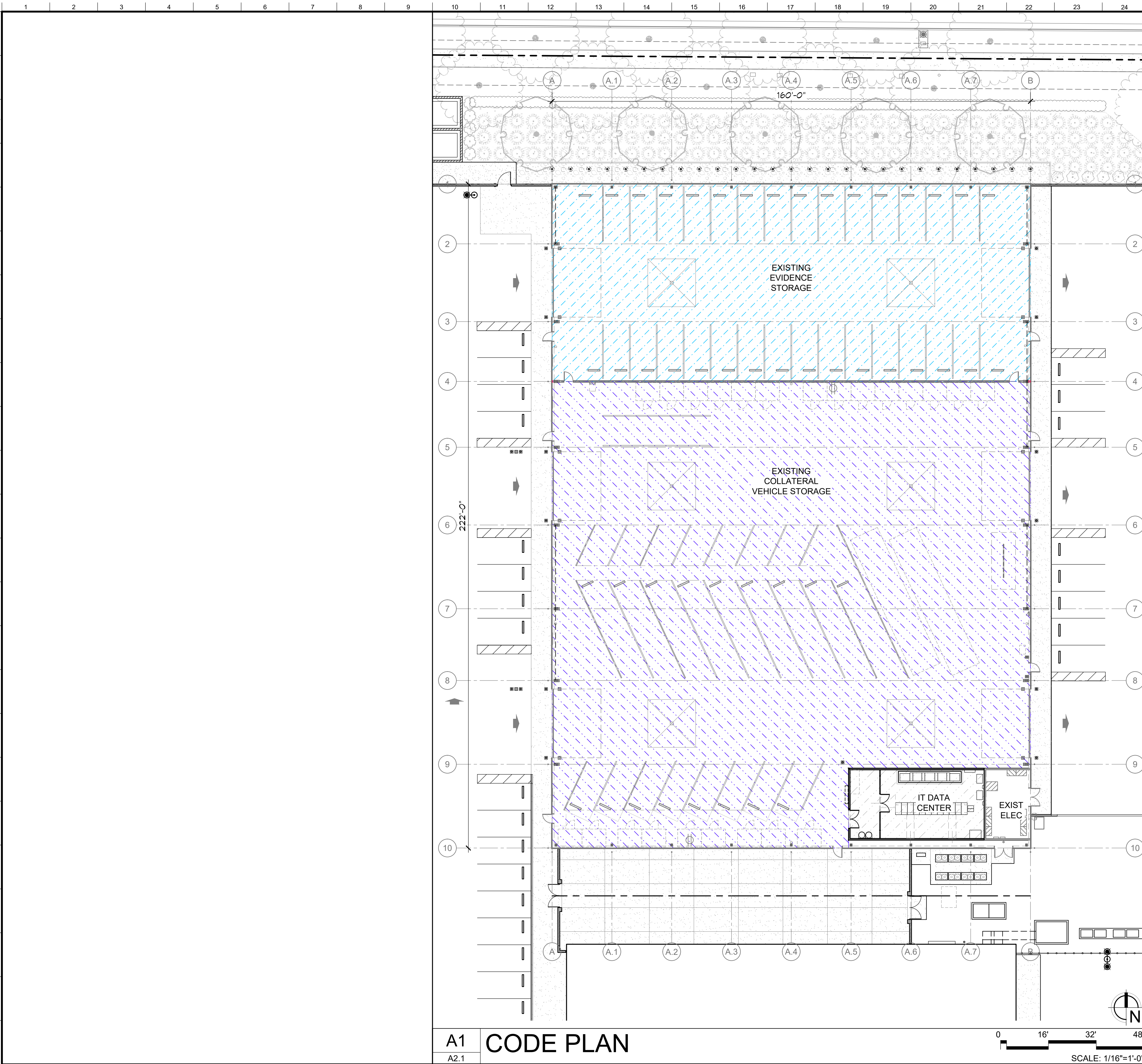
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Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
1129 N. Armstrong Ave., Fresno, CA 93727  
APN: 310-133-04, -05, and -06  
ISSUE DATE: 02.11.2022  
PROJECT NO: T80293 / 19003.03  
FILE NAME: 19003-03\_A1-2\_Site\_Details

**Sheet Content:**  
SITE DETAILS

Fresno County Department of Public Works and Planning  
Capital Projects

2220 Tulare Street, 8th Floor  
Fresno, California 93721

**Sheet No.**  
**A1.2**



**STORAGE BUILDING AREAS & OCC**

DESC	AREA	OLF	OCC
TOTAL BUILDING	35,520 SF		
S-2 STORAGE 1	10,560 SF	300	36
S-2 STORAGE 2	23,338 SF	300	78
ACCESSORY STORAGE (FUTURE DATA CENTER)	1,104 SF	300	4
TOTAL OCCUPANCY			118

NOTE: ONE (1) SF ROUND-OFF ERROR MAY OCCUR

**CODE ANALYSIS**

- 2019 CALIFORNIA BUILDING CODE
- ...
  - ...
  - CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION
    - SECTION 311 STORAGE GROUP 5
      - 311.3 Low-hazard storage, Group S-2. Storage Group S-2 occupancies include, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Group S-2 storage uses shall include, but not be limited to, storage of the following: Parking garages, open or enclosed
  - CHAPTER 4 SPECIAL DETAILED REQUIREMENTS ON USE AND OCCUPANCY
    - 406.6 Enclosed parking garages. Enclosed parking garages shall comply with Sections 406.6.1 through 406.6.3.
      - 406.6.1 Heights and areas. Enclosed vehicle parking garages and portions thereof that do not meet the definition of open parking garages shall be limited to the allowable heights and areas specified in Sections 504 and 506 as modified by Section 507. Roof parking is permitted.
      - 406.6.2 Ventilation. A mechanical ventilation system shall be provided in accordance with the California Mechanical Code.
      - 406.6.3 Automatic sprinkler system. An enclosed parking garage shall be equipped with an automatic sprinkler system in accordance with Section 903.2.10.
  - CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS
    - TABLE 504.3 ALLOWABLE ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE
      - 5.1.1 GROUP S; S; TYPE IIB; 75'
      - 5.1.2 Max building height = 23'-0" < 75' **OK**
    - TABLE 506.2 ALLOWABLE AREA FACTOR IN SQUARE FEET
      - 5.2.1 GROUP S-2; S1; TYPE IIB; 104,000 SF
      - 5.2.2 Building area = 35,520 SF < 104,000 SF **OK**
  - CHAPTER 6 TYPES OF CONSTRUCTION
    - TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
      - 6.1.1 X < 10; TYPE IIB; GROUP S-2; 1 HR
      - 6.1.2 10 ≤ X; TYPE IIB; GROUP S-2; 0 HR



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 ISSUE DATE: 02.11.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A2-1\_Code\_Plan

**Sheet Content:**  
 STORAGE CODE PLAN

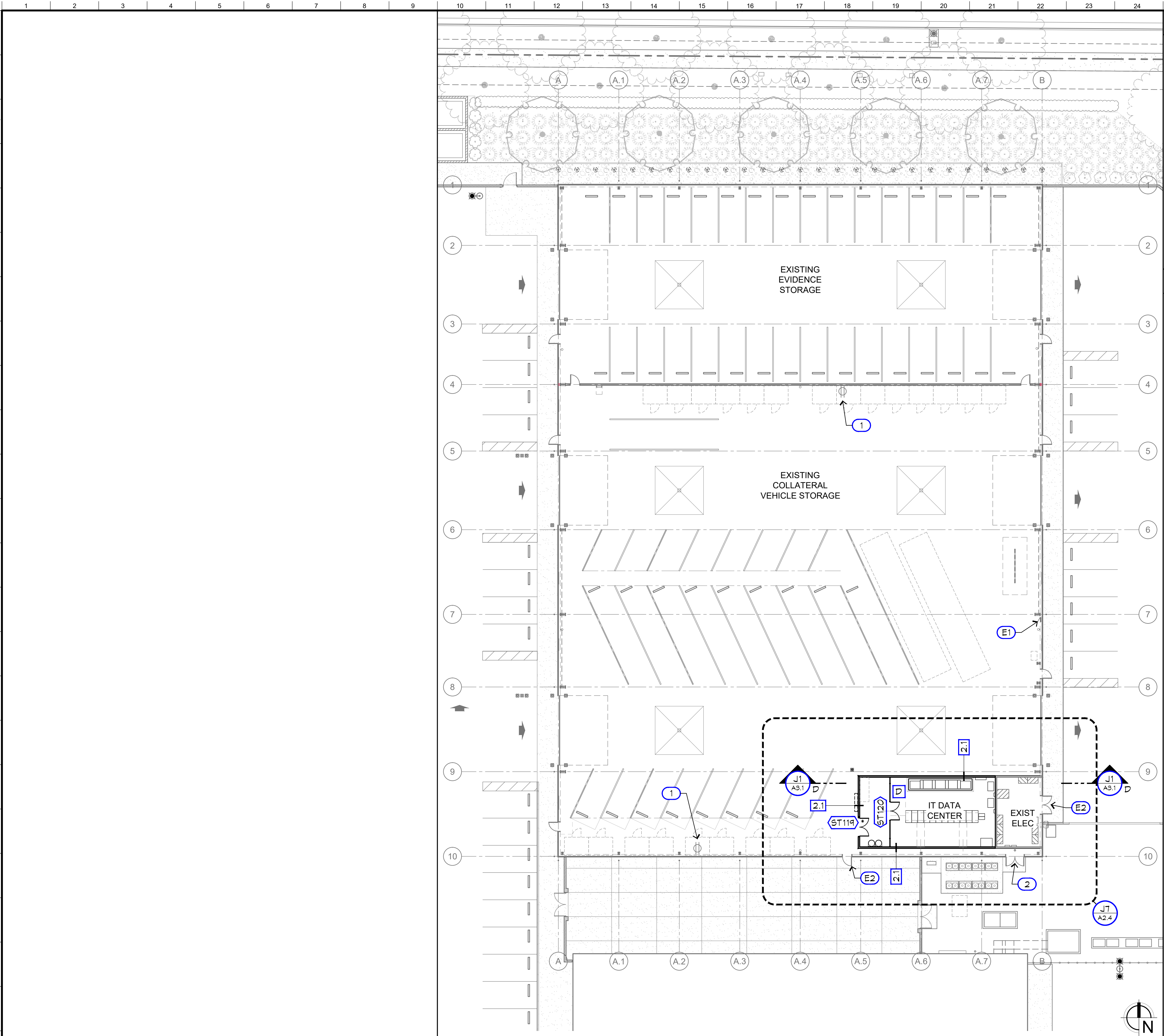


**Sheet No.**  
**A2.1**

A1  
 A2.1

**CODE PLAN**

0 16' 32' 48'  
 SCALE: 1/16"=1'-0"



### WALL LEGEND

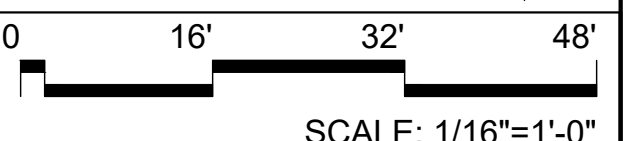
- EXISTING EXTERIOR WALL (NR)
- INTERIOR WALL (NR) - 600T125-54 METAL TRACK TOP AND BOTTOM W/ 600S162-54 METAL STUDS AT 12" O.C. MAX, R-19 BATT INSULATION AND 3/4" FIRE-RETARDANT PLYWOOD SHEATHING BOTH SIDES. INSTALL SHEATHING W/ LENGTH AXIS PERPENDICULAR TO SUPPORTS AND FASTEN W/ #6 x 1" WAFER HEAD STGMS AT 6" O.C. AT EDGES AND 12" O.C. AT FIELD

### KEYNOTES LEGEND

- (E1) EXISTING ELECTRICAL PANEL
- (E2) EXISTING EXIT DOORS
- (1) ELECTRICAL OUTLETS ADDED AT THIS WALL. SEE ELECTRICAL REVISIONS.
- (2) FIRE RISER ACCESS W/ FIRE DEPARTMENT KEY IN KNOX BOX

A10  
A2.2

## STORAGE FLOOR PLAN - OVERALL

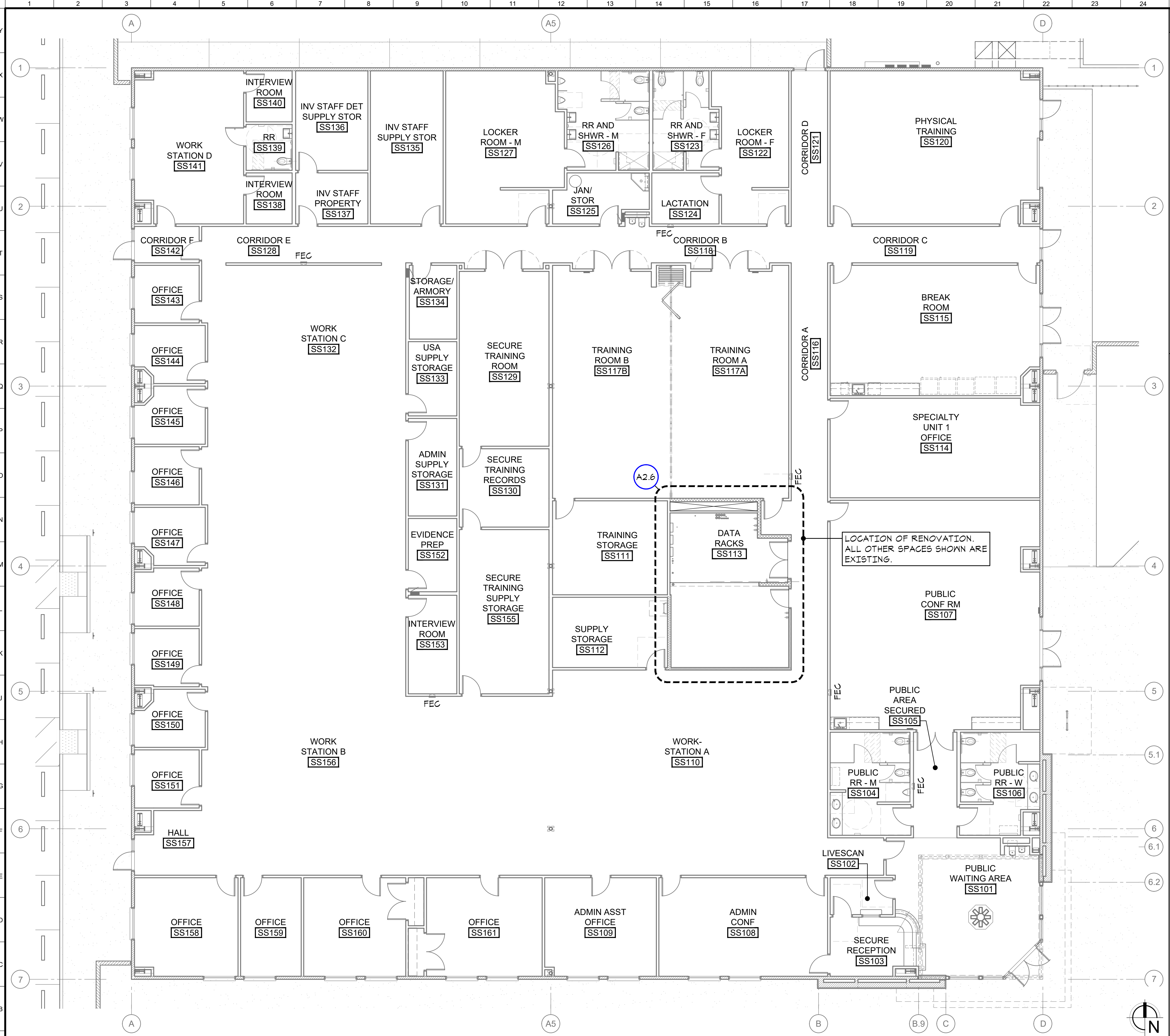


**Project:**  
 Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
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 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A2-2\_ST\_Floor\_Plan

**Sheet Content:**  
 STORAGE FLOOR PLAN



**Sheet No.**  
**A2.2**



### WALL LEGEND

	EXTERIOR WALL (NR) - STUCCO O/ METAL LATHE O/ WRB O/ SHEATHING O/ 6" x 16 GA METAL STUDS AT 16" O.C. MAX W/ R-19 BATT INSULATION AND 5/8" GYP BD AT INTERIOR WHERE EXPOSED UNLESS NOTED OTHERWISE.
	INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE.
	INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 20 GA. METAL STUDS AT 24" O.C.
	INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 20 GA. METAL STUDS AT 24" O.C. AND R-19 UNFACED BATT INSULATION



**Project:**  
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ISSUE DATE: 02.11.2022  
PROJECT NO: T80293 / 19003.03  
FILE NAME: 19003-03\_A2-3\_SS\_Floor\_Plan

**Sheet Content:**  
OFFICE FLOOR PLAN



Sheet No.  
**A2.3**

**A1 OFFICE FLOOR PLAN - OVERALL**

Scale: 1/8" = 1'-0"

0 8' 16' 24'



### KEYNOTES LEGEND

- ① 8" CONCRETE HOUSEKEEPING PAD. SEE [DETAIL N1/A5.1](#)
- ② DATA CENTER EQUIPMENT (OFCI)
- ③ CABLE TRAY ABOVE (OFCI). SEE [DETAIL A9/A5.2](#)
- ④ 96"x36" IT SETUP DESK (OFCI)
- ⑤ CLEAN AGENT FIRE SUPPRESSION SYSTEM TANKS. SEE [ISD DRAWINGS](#).
- ⑥ REMOVABLE STEEL BOLLARD. SEE [DETAIL A9/A5.1](#)
- ⑦ SIMPSON S/HDU4 HOLD DOWN W/ HILTI 5/8" KB-TZ (3.6254 MIN EMBED) EACH END OF SHEAR WALL. SEE [DETAIL A1/A5.1](#)
- ⑧ WALL CONSTRUCTION PER PLAN, TYPICAL. SEE [SHEET A2.2](#)
- ⑨ FIRE RISER
- ⑩ INSTALL NEW 3/4" PLYWOOD O/ NEW R-19 BATT INSULATION IN EXISTING FRAMING TYPICAL AT EXTERIOR OF EXISTING ELECTRICAL ROOM.
- ⑪ LOCATION OF UPS STATUS PANELS AND FUTURE GENERATOR MONITOR PANEL. INSTALL O/ METAL SIDING.
- ⑫ INSTALL R-19 BATT INSULATION, 3/4" FIRE-RETARDANT PLYWOOD AND 5/8" TYPE 'X' GYP BOARD O/ EXISTING STUDS THIS WALL ONLY.
- ⑬ METAL SIDING W/ CORNER GUARD AT TOP AND BASE AT BOTTOM ON NORTH, WEST AND SOUTH SIDES ONLY. SEE INTERIOR ELEVATIONS, [SHEET A5.1](#), FOR MORE INFORMATION

### FINISH SPECIFICATIONS

FLOORS	
AVT-1	ANTI-STATIC VINYL TILE; MFR; STYLE; COLOR BY OWNER. SEE SPECIFICATIONS <a href="#">SECTION 096536</a> FOR ADDITIONAL INFORMATION.
CONC	CONCRETE, SEALED

BASE	
RB-1	TOPSET RUBBER BASE; MFR; STYLE; COLOR BY OWNER

WALLS	
GBW-1	GYPSUM BOARD WALL O/ PLYWOOD SHEATHING; FIRE TAPED W/ KNOCK-DOWN FINISH AND PAINTED W/ 2-COATS SEMI-GLOSS LATEX PAINT. COLOR BY OWNER.
PWS-1	CDX PLYWOOD SHEATHING W/ ONE COAT PRIMER AND TWO COATS SEMI-GLOSS LATEX PAINT. COLOR BY OWNER.

CEILINGS	
GBC-1	GYPSUM BOARD CEILING O/ PLYWOOD SHEATHING; FIRE TAPED W/ KNOCK-DOWN FINISH AND PAINTED W/ ONE COAT PRIMER AND TWO COATS SEMI-GLOSS LATEX PAINT. COLOR BY OWNER
PWS-1	SEE PWS-1 DESCRIPTION UNDER "WALLS" ABOVE

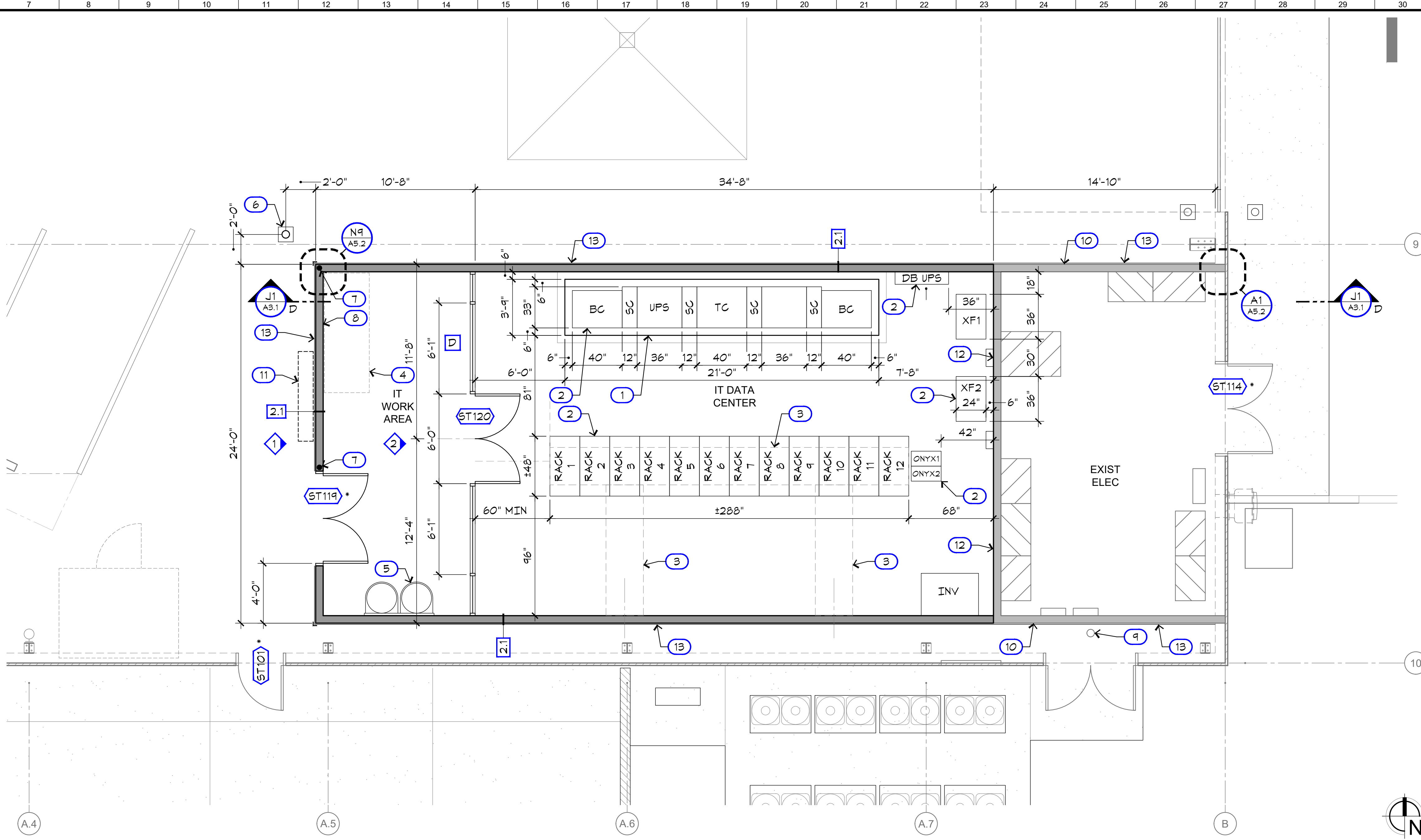
MISCELLANEOUS	
COVER PLATES	WHITE PLASTIC

### SYMBOLS LEGEND

- ⑩ DOOR SYMBOL. SEE DOOR SCHEDULE, [SHEET A4.1](#)  
\* INDICATES SECURITY KEY CARD ACCESS
- X WINDOW / FRAME SYMBOL SEE [DETAIL N1/A4.1](#)
- ① INTERIOR ELEVATIONS SEE [DETAIL A17/A5.1](#)

### EQUIPMENT LEGEND

BC	BATTERY CABINET
SC	SIDE CAR
TC	TIE CABINET



## J7 FLOOR PLAN

### FINISH SCHEDULE

ROOM NAME	FLOOR			WALLS			WAINSCOT			CEILING			NOTES
	MATERIAL / FINISH	MATERIAL / FINISH	HEIGHT	MATERIAL / FINISH	MATERIAL / FINISH	HEIGHT	MATERIAL / FINISH	MATERIAL / FINISH	HEIGHT	MATERIAL / FINISH	MATERIAL / FINISH		
IT WORK AREA	AVT-1	RB-1	0'-6"	GBW-1	-	-	GBC-1	-	-	GBC-1	-	-	
IT DATA CENTER	AVT-1	RB-1	0'-6"	GBW-1	-	-	GBC-1	-	-	GBC-1	-	-	
EXISTING ELECTRICAL	CONC	-	-	PWS-1	-	-	PWS-1	-	-	PWS-1	-	-	

### FINISH SCHEDULE NOTES

- 1.

### FINISH ABBREVIATIONS

FF ... FACTORY FINISH	PNT ... PAINT
GBC ... GYPSUM BOARD CEILING	PWS ... PLYWOOD SHEATHING
GBW ... GYPSUM BOARD WALL	RB ... TOPSET RUBBER BASE

### WALL LEGEND

- EXISTING EXTERIOR WALL (NR)
- INTERIOR WALL (NR) - 600T125-54 METAL TRACK TOP AND BOTTOM W/ 600S162-54 METAL STUDS AT 12" O.C. MAX, R-19 BATT INSULATION AND 3/4" FIRE-RETARDANT PLYWOOD SHEATHING BOTH SIDES. INSTALL SHEATHING W/ LENGTH AXIS PERPENDICULAR TO SUPPORTS AND FASTEN W/ #6 x 1" WAFER HEAD STMS AT 6" O.C. AT EDGES AND 12" O.C. AT FIELD

**Project:**  
 Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04, -05, and -06  
 ISSUE DATE: 02.11.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A2-4\_ST\_Data\_Center

**Sheet Content:**  
 STORAGE DATA CENTER FLOOR PLAN

Fresno County Department of Public Works and Planning  
 Capital Projects  
 2220 Tulare Street, 8th Floor  
 Fresno, California 93721

Sheet No.  
**A2.4**

**WALL LEGEND**

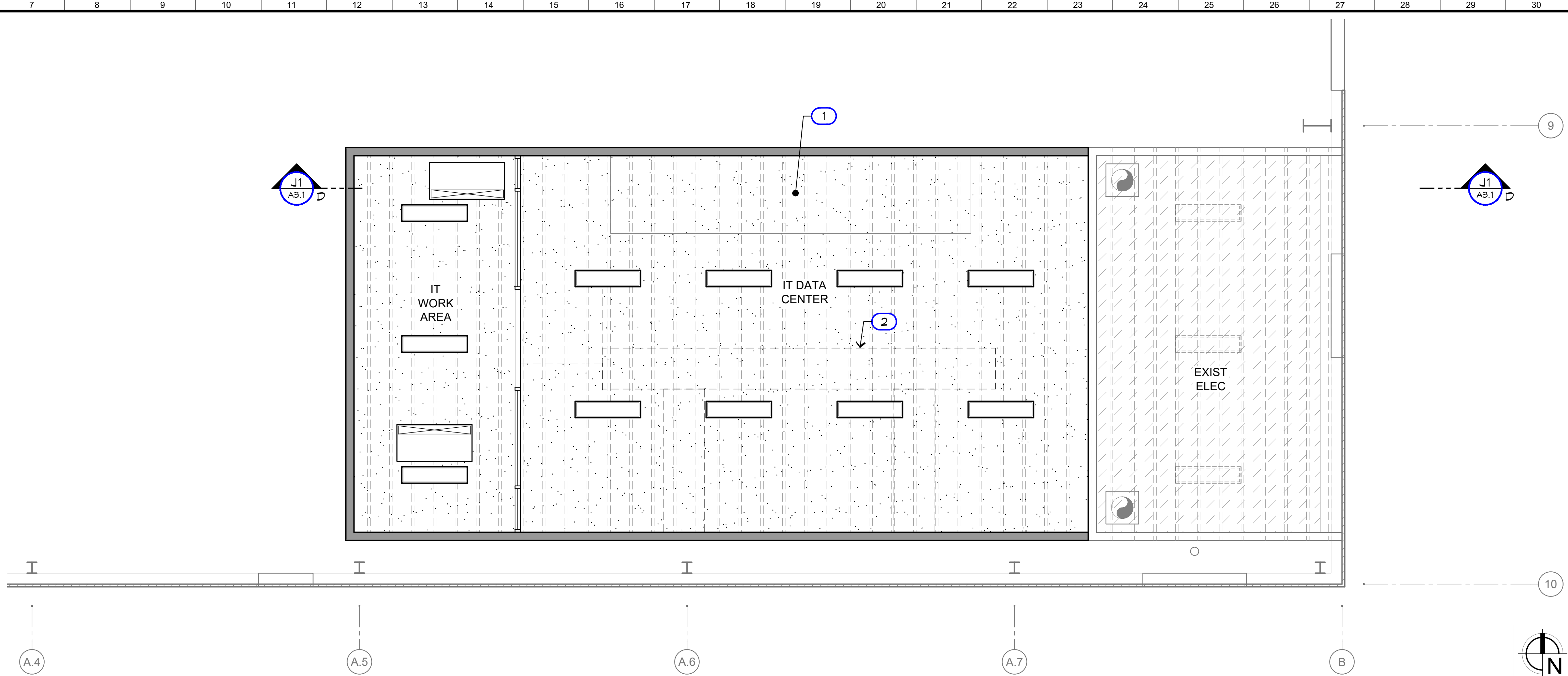
- EXISTING EXTERIOR WALL (NR)
- INTERIOR WALL (NR) - 600T125-54 METAL TRACK TOP AND BOTTOM W/ 600S162-54 METAL STUDS AT 12" O.C. MAX, R-19 BATT INSULATION AND 3/4" FIRE-RETARDANT PLYWOOD SHEATHING BOTH SIDES. INSTALL SHEATHING W/ LENGTH AXIS PERPENDICULAR TO SUPPORTS AND FASTEN W/ #6 x 1" WAFFER HEAD STDS AT 6" O.C. AT EDGES AND 12" O.C. AT FIELD

**KEYNOTES LEGEND**

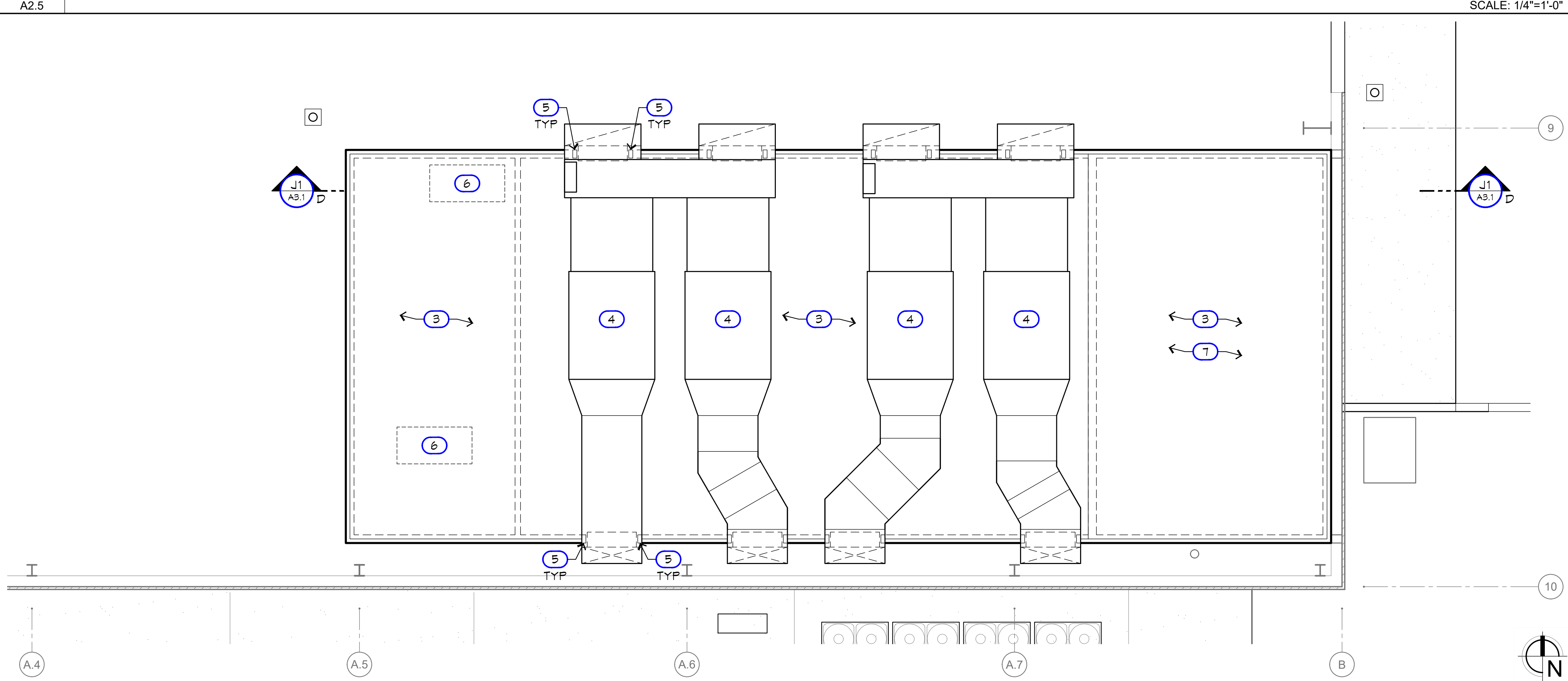
- 1** CEILING CONSTRUCTION  
600T125-54 METAL TRACK PERIMETER W/ DOUBLE 600S162-54 METAL JOISTS AT 16" O.C. MAX, R-21 BATT INSULATION AND 3/4" FIRE-RETARDANT PLYWOOD SHEATHING BOTH SIDES. ALIGN SLOTS IN NEW JOISTS W/ SLOTS IN EXISTING JOISTS INSTALLED AT ELECTRICAL ROOM TO ACCOMMODATE CONTINUOUS ELECTRICAL CONDUIT PATHWAYS. INSTALL SHEATHING WITH LENGTH AXIS PERPENDICULAR TO SPAN SUPPORTS. ATTACH TO SUPPORTS WITH #6 x 1" WAFFER HEAD STDS AT 6" O.C. AT EDGES AND 12" O.C. AT FIELD
- 2** CABLE TRAYS BELOW
- 3** NEW 3/4" FIRE RETARDANT PLYWOOD DECK. TOP OF DECK SHALL BE PAINTED W/ TWO COATS OF EPOXY BASED PAINT (GREY) PRIOR TO INSTALLING A/C EQUIPMENT
- 4** A/C EQUIPMENT. SEE MECHANICAL DWGS.
- 5** PROVIDE DOUBLE STUDS AT EACH SIDE OF DUCT WALL PENETRATION BELOW, TYPICAL
- 6** A/C UNIT BELOW. SEE MECHANICAL DWGS.
- 7** INSTALL NEW R-21 BATT INSULATION IN EXISTING ROOF CONSTRUCTION O/ ELECTRICAL ROOM

**CEILING LEGEND**

- PAINTED GYPSUM BOARD
- EXISTING PAINTED PLYWOOD
- SURFACE-MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
- EXISTING SUSPENDED LIGHT FIXTURE. SEE ELECTRICAL
- EXISTING EXHAUST FAN. SEE MECHANICAL
- CEILING SUSPENDED HVAC UNIT. SEE MECHANICAL



**N7 REFLECTED CEILING PLAN**



**A7 ROOF PLAN**

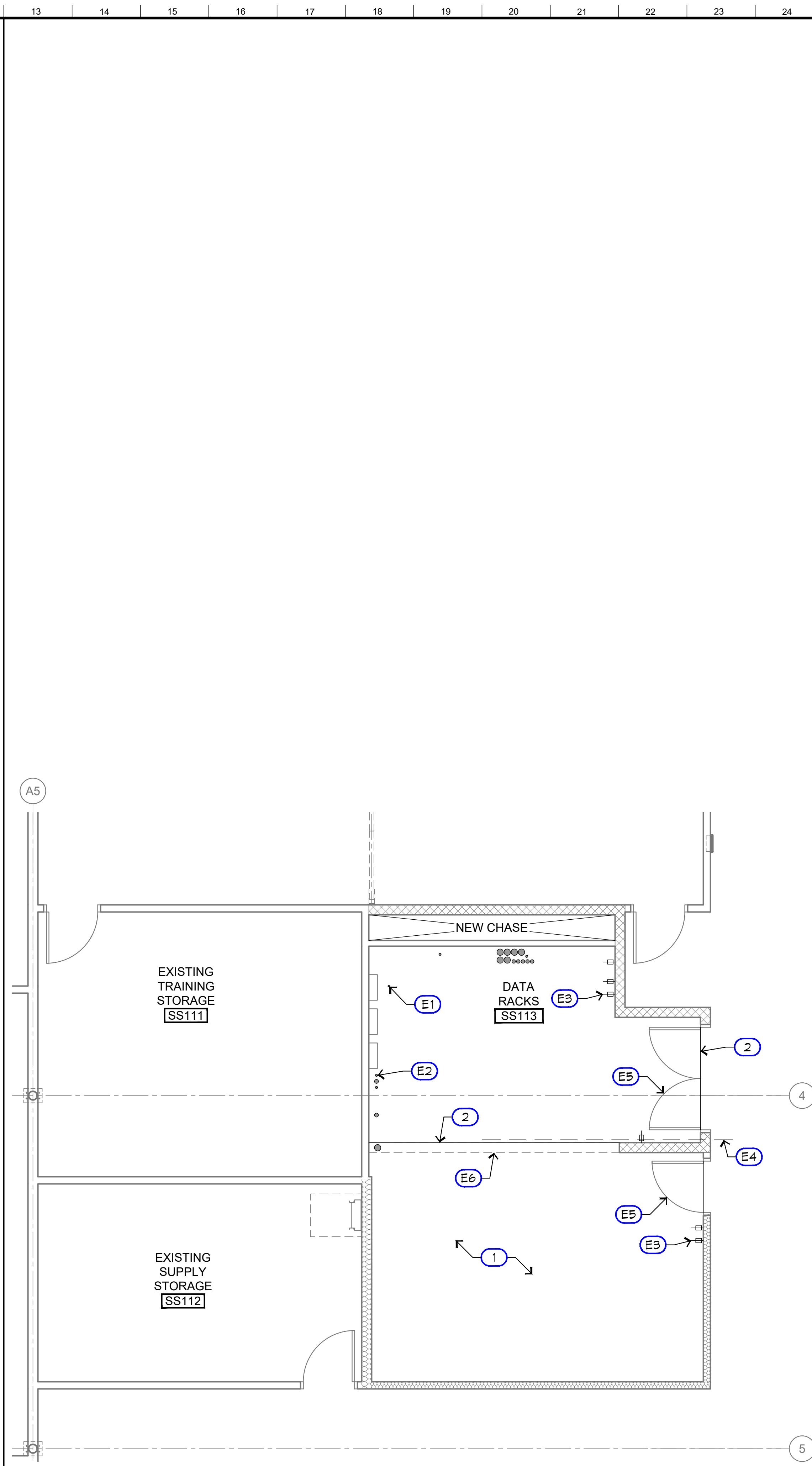
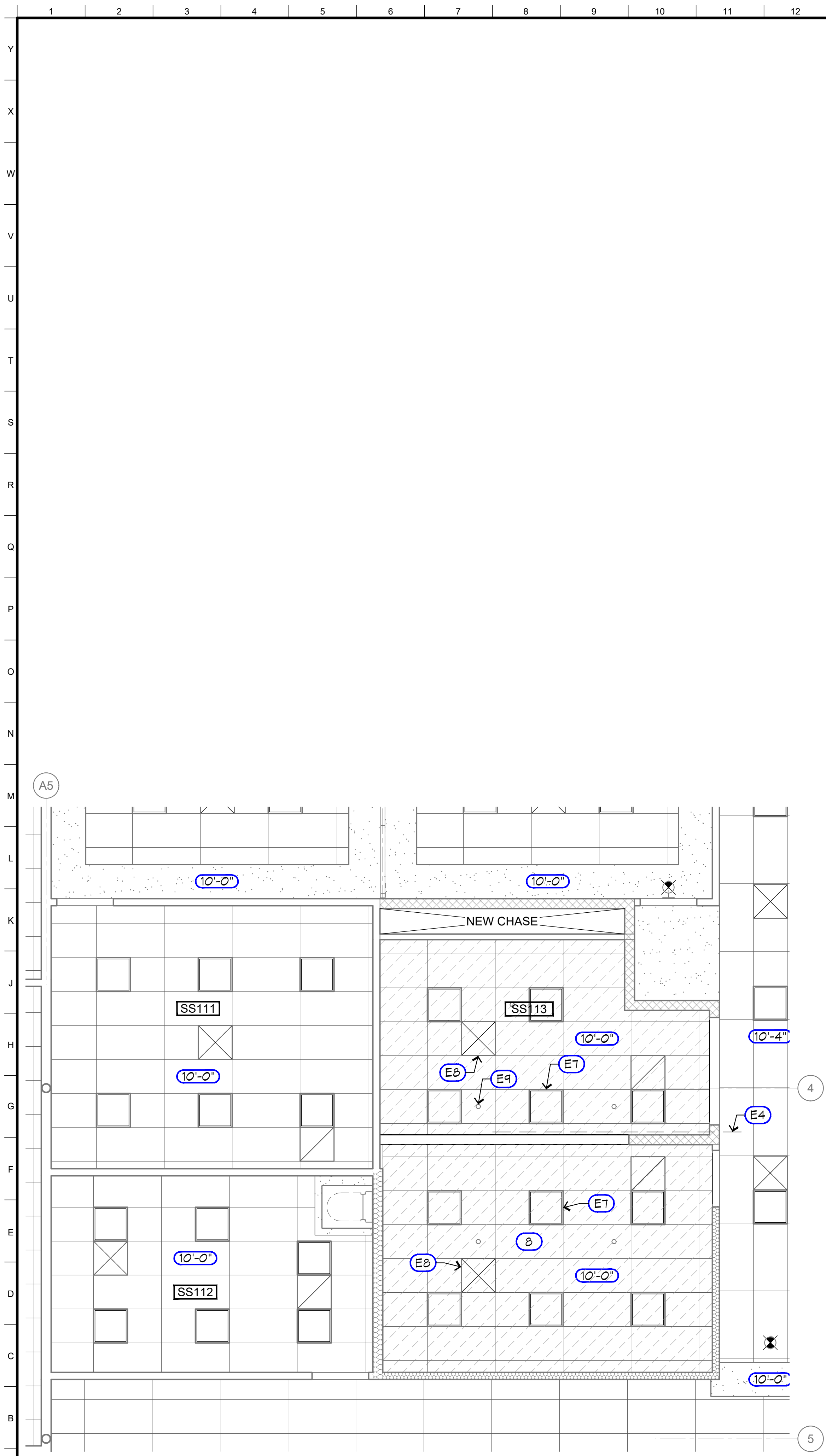
**ARCHITECT**  
 Noel Roger Davidson, A.I.A., Architect  
 California Licensed Architect No. C-27818  
 Ren: 10-31-22  
 Fresno County Department of Public Works and Planning  
 Development Services and Capital Projects Division  
 2220 Tulare Street, Eighth Floor  
 Fresno, California 93721  
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 FILE NAME: 19003-03\_A2-5\_ST\_Data\_Center

**Sheet Content:**  
 STORAGE DATA CENTER  
 REFL CLNG AND ROOF  
 PLANS

Fresno County Department of Public Works and Planning  
 Capital Projects  
 2220 Tulare Street, 8th Floor  
 Fresno, California 93721

Sheet No.  
**A2.5**



### WALL LEGEND

- EXTERIOR WALL (NR) - STUCCO O/ METAL LATHE O/ WRB O/ SHEATHING O/ 6" x 16 GA METAL STUDS AT 16" O.C. MAX W/ R-19 BATT INSULATION AND 5/8" GYP BD AT INTERIOR WHERE EXPOSED UNLESS NOTED OTHERWISE.
- INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE.
- INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 20 GA. METAL STUDS AT 24" O.C.
- INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 20 GA. METAL STUDS AT 24" O.C. AND R-19 UNFACED BATT INSULATION

### KEYNOTES LEGEND

- EXISTING CU GRND
- EXISTING CONDUIT IN FLOOR TO BE PROTECTED UNO
- EXISTING LIGHTING CONTROLS AND THERMOSTAT LOCATIONS, TYPICAL
- EXISTING BANK OF OVERHEAD EMT CONDUIT
- EXISTING DOOR, FRAME AND HARDWARE
- EXISTING BOX HEADER ABOVE
- EXISTING LIGHT FIXTURE, TYPICAL
- EXISTING HVAC REGISTER, TYPICAL
- EXISTING FIRE SPRINKLER, TYPICAL
- CLEAN AND SEAL EXISTING CONCRETE
- PROVIDE REDUCER STRIP AT EDGE OF EXISTING STATIC RESISTANT FLOORING



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 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A2-6\_SS\_Data\_Center

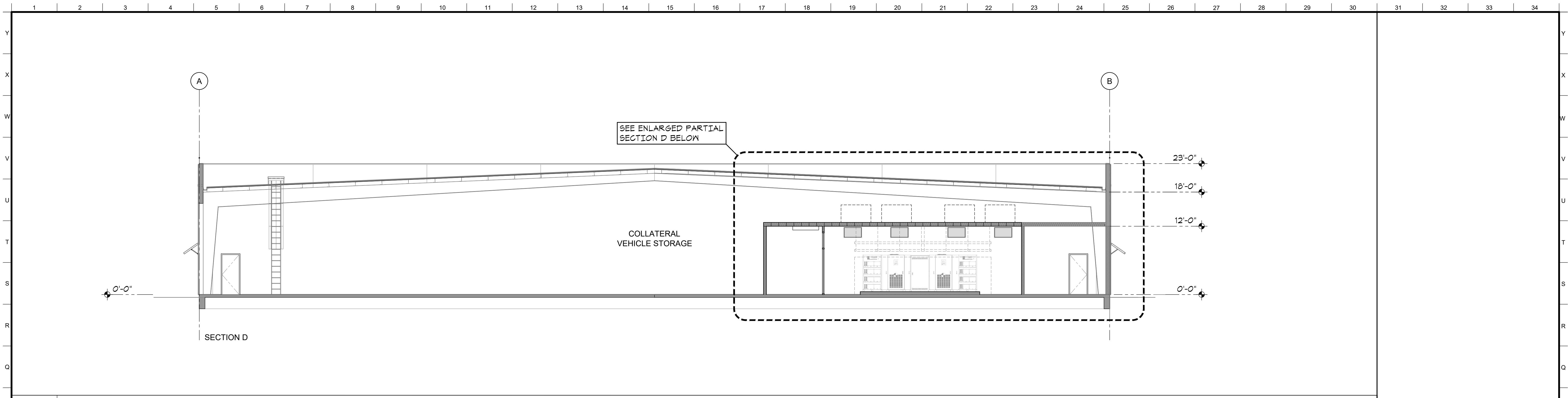
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 OFFICE DATA CENTER



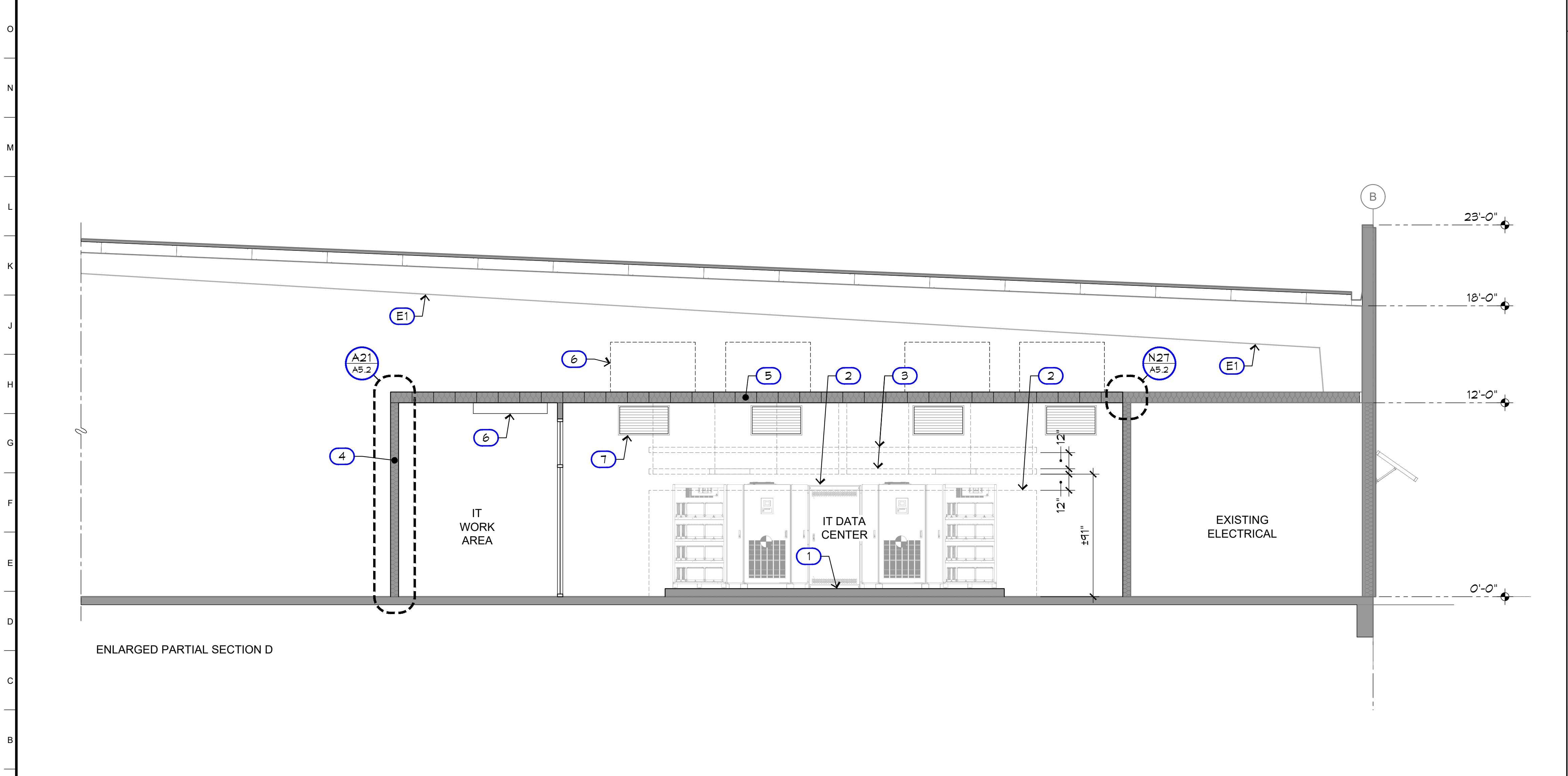
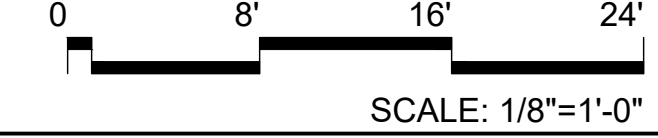
**Sheet No.**  
**A2.6**

**A1** NEW REFL CEILING PLAN  
 A2.6 SCALE: 1/4"=1'-0"

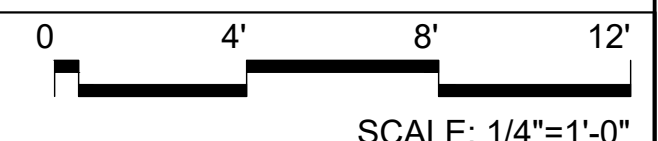
**A13** NEW FLOOR PLAN  
 A2.6 SCALE: 1/4"=1'-0"



**J1 BUILDING SECTION**  
A3.1



**A1 BUILDING SECTION**  
A3.1



- KEYNOTES LEGEND**
- (E1) EXISTING METAL BUILDING FRAME BEYOND
  - (1) 8" CONCRETE HOUSEKEEPING PAD. SEE [DETAIL N1/A5.1](#)
  - (2) FUTURE DATA CENTER EQUIPMENT
  - (3) FUTURE CABLE TRAY ABOVE. SEE [DETAIL A9/A5.2](#)
  - (4) R-19 BATT INSULATION
  - (5) R-21 BATT INSULATION
  - (6) A/C UNIT, TYP. SEE [MECHANICAL DWGS](#)
  - (7) HVAC REGISTER, TYP. SEE [MECHANICAL DWGS](#). PROVIDE FRAMING AT OPENINGS PER [DETAILS L4 AND A23/A4.2 SIM](#).



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 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A3-1\_Elev\_Sect

**Sheet Content:**  
 STORAGE BUILDING SECTION



**Sheet No.**  
**A3.1**

### DOOR SCHEDULE NOTES

- \* INDICATES SECURITY KEY CARD ACCESS
- FOR DOORS SHOWN ON PLAN BUT NOT LISTED ON DOOR SCHEDULE, SEE 'AREA 2 SUBSTATION STORAGE BLDG' DRAWINGS.

### ABBREVIATIONS

- |                            |                        |
|----------------------------|------------------------|
| AL ... ALUMINUM            | PNT ... PAINTED        |
| FF ... FACTORY FINISH      | SC ... SOLID CORE WOOD |
| HM ... HOLLOW METAL        | SF ... STORE FRONT     |
| OHC ... OVERHEAD COILING   | STN ... STAINED        |
| OHS ... OVERHEAD SECTIONAL | WD ... WOOD            |
| PLA ... PLASTIC LAMINATE   |                        |

### HARDWARE

- ALL DOOR HARDWARE SHALL HAVE **SATURN** LEVER TYPE AND **626/US26D SATIN CHROME** FINISH UNLESS NOTED OTHERWISE. **SCHLAGE** OR EQUAL.
- ALL HINGES SHALL BE COMMERCIAL GRADE HEAVY DUTY BALL BEARING WITH NON-REMOVABLE PINS TO MATCH LEVER HANDLE FINISH.
- ALL LOCK CYLINDERS SHALL BE BUILDER KEYED CYLINDERS. THE COUNTY WILL RE-KEY ALL LOCKS PRIOR TO OCCUPYING THE BUILDINGS.
- ALL HARDWARE SHALL BE RATED AS "COMMERCIAL GRADE HEAVY DUTY" AND SHALL MATCH LEVER HANDLE FINISH AS CLOSE AS POSSIBLE.
- ALL HARDWARE WILL REQUIRE SUBMITTAL AND APPROVAL BY THE ARCHITECT PRIOR TO ORDERING.

#### TYPE 1 (DOOR ST119)

- 6 EA HINGE
- 2 EA CLOSER W/ HOLD-OPEN
- 1 EA THRESHOLD
- 2 EA DOOR SWEEP
- WEATHER STRIPPING
- ACTIVE LEAF
  - 1 EA LOCKSET, STORAGE
- ANCHOR LEAF
  - 1 EA STRIKE
  - 1 PR MANUAL FLUSH BOLTS
  - 1 EA ASTRAGAL

[COORDINATE INSTALLATION OF OWNER PROVIDED KEY CARD ACCESS SYSTEM WITH OWNER'S VENDOR]

#### TYPE 2 (DOOR ST120)

- DOOR HARDWARE BY DOOR SUPPLIER
- OFFSET PIVOTS
- SURFACE-MOUNTED CLOSERS W/ HOLD-OPEN
- WEATHER-STRIPPING AND SWEEPS
- THRESHOLD
- ACTIVE LEAF
  - LOCKSET, STORAGE
- ANCHOR LEAF
  - STRIKE
  - MANUAL FLUSH BOLTS
  - ASTRAGAL

[COORDINATE INSTALLATION OF OWNER PROVIDED KEY CARD ACCESS SYSTEM WITH OWNER'S VENDOR]

### DOOR SCHEDULE

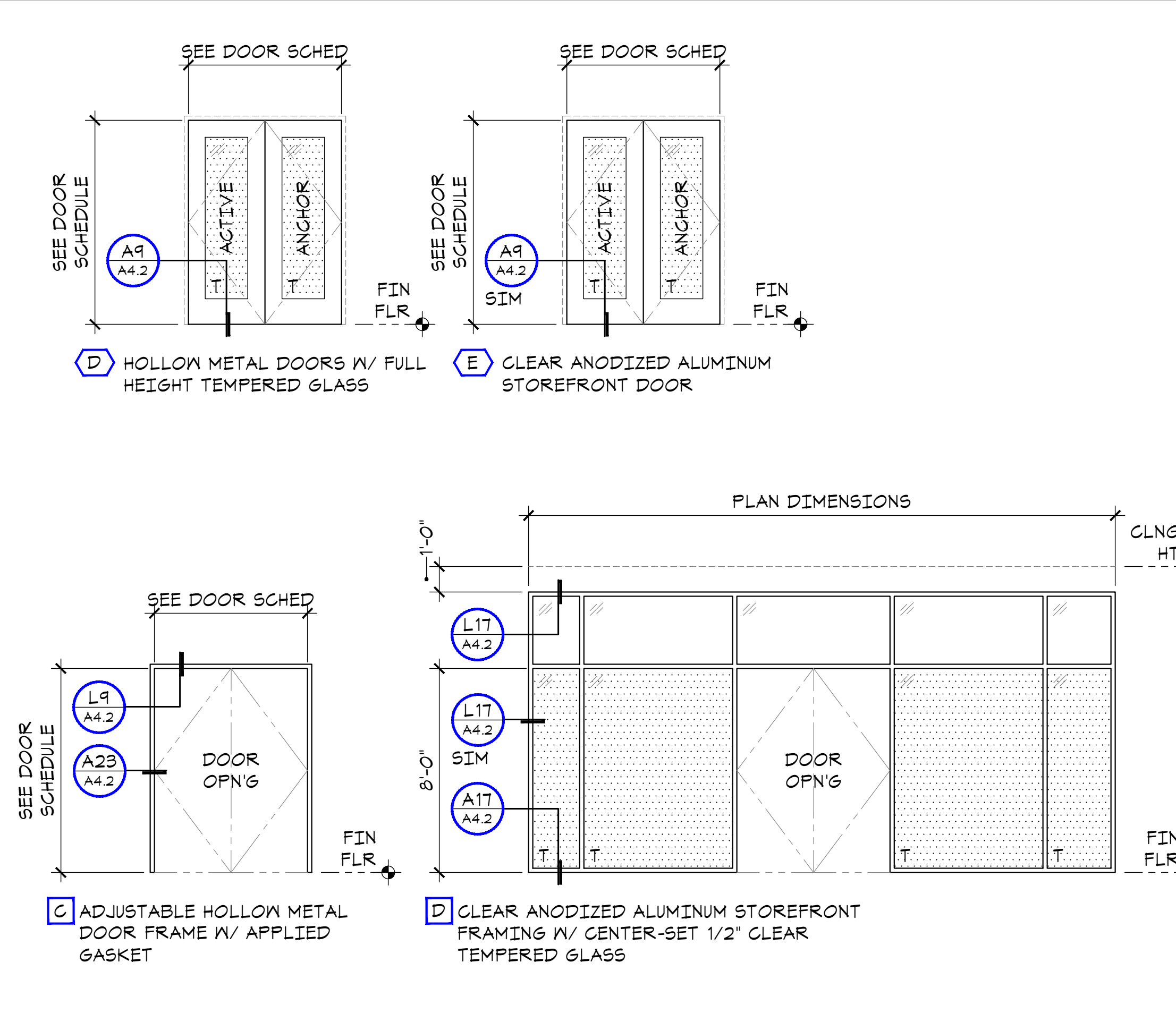
DOOR NUMBER (SEE NOTES 1 & 2)	DOOR LOCATION	DOOR SIZE	DOOR TYPE SEE DTL N1/A4.1	DOOR THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME TYPE SEE DTL N1/A4.1	FRAME MATERIAL	FRAME FINISH	HARDWARE	FIRE LABEL	NOTES
ST119 *	IT WORK AREA	PR 3'-0"x8'-0"	D	1-3/4"	HM	FF	C	HM	FF	1		
ST120	IT DATA CENTER	PR 3'-0"x8'-0"	F	1-3/4"	AL	FF	D	AL	FF	2		

### GENERAL DOOR NOTES

- THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE, OTHER THAN FIRE DOORS, SHALL NOT EXCEED 5 POUNDS. FOR REQUIRED FIRE DOORS, THE OPENING FORCE SHALL BE THE MINIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS. (2016 CBC 1010.1.3, 11B-404.2.9)
- THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR. SUCH FLOOR OR LANDING SHALL BE AT THE SAME ELEVATION ON EACH SIDE OF THE DOOR. LANDINGS SHALL BE LEVEL EXCEPT FOR EXTERIOR LANDINGS, WHICH ARE PERMITTED TO HAVE A SLOPE NOT TO EXCEED 0.25 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2-PERCENT SLOPE). (2016 CBC 1010.1.5)
- THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2 INCH ABOVE THE FINISHED FLOOR OR LANDING. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES GREATER THAN 1/4 INCH AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN ONE UNIT VERTICAL IN TWO UNITS HORIZONTAL (50-PERCENT SLOPE). (2016 CBC 1010.1.7)
- EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE SHALL BE OPERABLE WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. (2016 CBC 1010.1.9, 11B-309.4)
- THE LEVER OF LEVER ACTUATED LATCHES OR LOCKS SHALL BE CURVED WITH A RETURN TO WITHIN 1/2" OF THE DOOR TO PREVENT CATCHING ON CLOTHING OF PERSONS DURING EGRESS. (2016 CBC 1010.1.9.1, CA REF STDS CODE, 12-10-202)
- DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISHED FLOOR. (2016 CBC 1010.1.9.2, 11B-404.2.7)
- MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. (2016 CBC 1010.1.9.4)
- THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION. (2016 CBC 1010.1.9.5)
- DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FINISHED FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES. (2016 CBC 11B-404.2.3)
- SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. (2016 CBC 11B-404.2.10)
- HARDWARE SUPPLIER SHALL INSTALL GENERAL CONTRACTOR'S KEY ON ALL LOCKSETS UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL VERIFY ACCESSIBLE MANEUVERING CLEARANCES AT DOORS PER [DETAIL A1/A4.2](#).

### GLASS AND GLAZING NOTES

- EACH LIGHT SHALL BEAR THE MANUFACTURER'S LABEL DESIGNATING THE TYPE AND THICKNESS OF GLASS.
- GLASS SHALL BE FIRMLY SUPPORTED ON ALL FOUR SIDES.
- GLAZING SUBJECT TO HUMAN IMPACT SHALL BE "TEMPERED GLAZING".
- EACH UNIT OF TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED BY THE MANUFACTURER. THE IDENTIFICATION SHALL BE ETCHED OR CERAMIC FIRED ON THE GLASS AND BE VISIBLE WHEN THE UNIT IS GLAZED. TEMPERED SPANDREL GLASS IS EXEMPT FROM PERMANENT LABELING BUT SUCH GLASS SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A REMOVABLE PAPER LABEL.
- THE FOLLOWING LOCATIONS SHALL REQUIRE SAFETY GLAZING:
  - 5.1. GLAZING IN INGRESS AND EGRESS DOORS
  - 5.2. GLAZING PANELS IN SWINGING DOORS
  - 5.3. GLAZING IN FIXED AND OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE.
- GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL, OTHER THAN IN THOSE LOCATIONS DESCRIBED IN PRECEDING ITEMS, WHICH MEETS ALL OF THE FOLLOWING CONDITIONS:
  - 6.1. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQUARE FEET;
  - 6.2. EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
  - 6.3. EXPOSED TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR; AND
  - 6.4. ONE OR MORE WALKING SURFACE (S) WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.



## N1 DOOR AND FRAME ELEVATIONS

A4.1 SCALE: 1/4"=1'-0"



### Project:

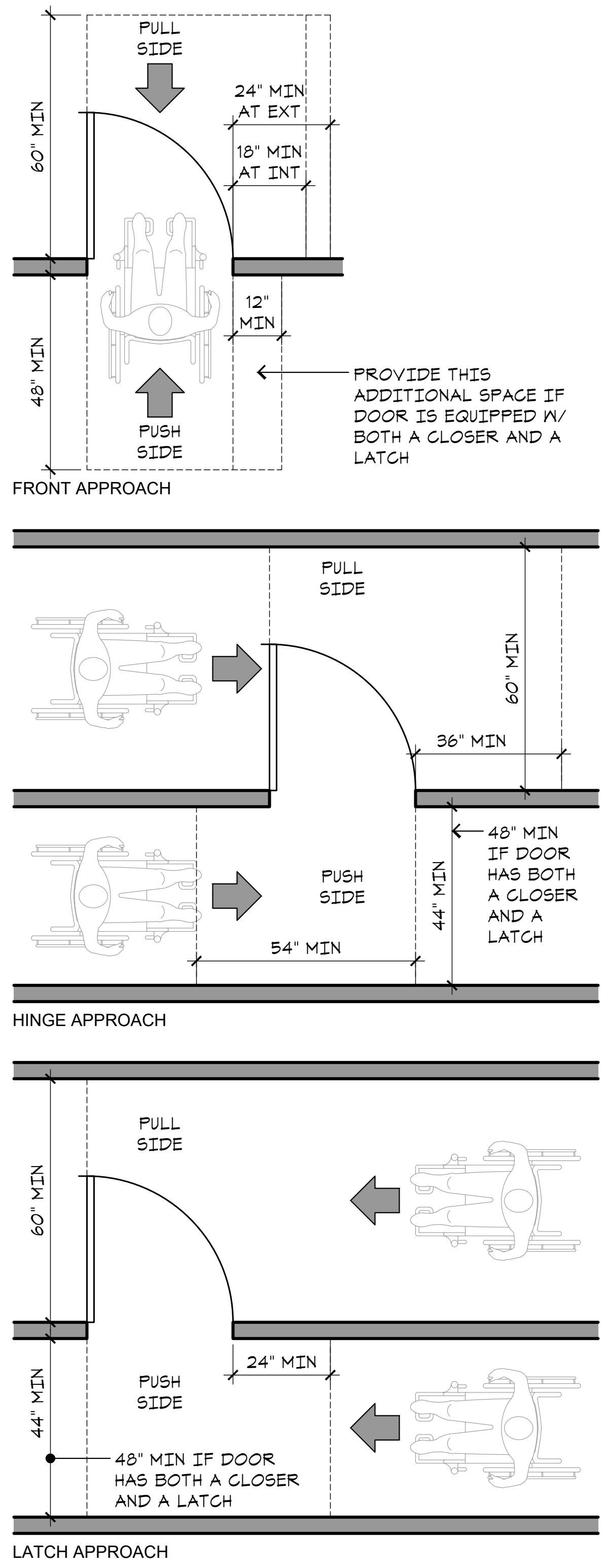
Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
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 ISSUE DATE: 02.11.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19003-03\_A4-1\_Door\_Wndo

### Sheet Content: DOORS AND WINDOWS

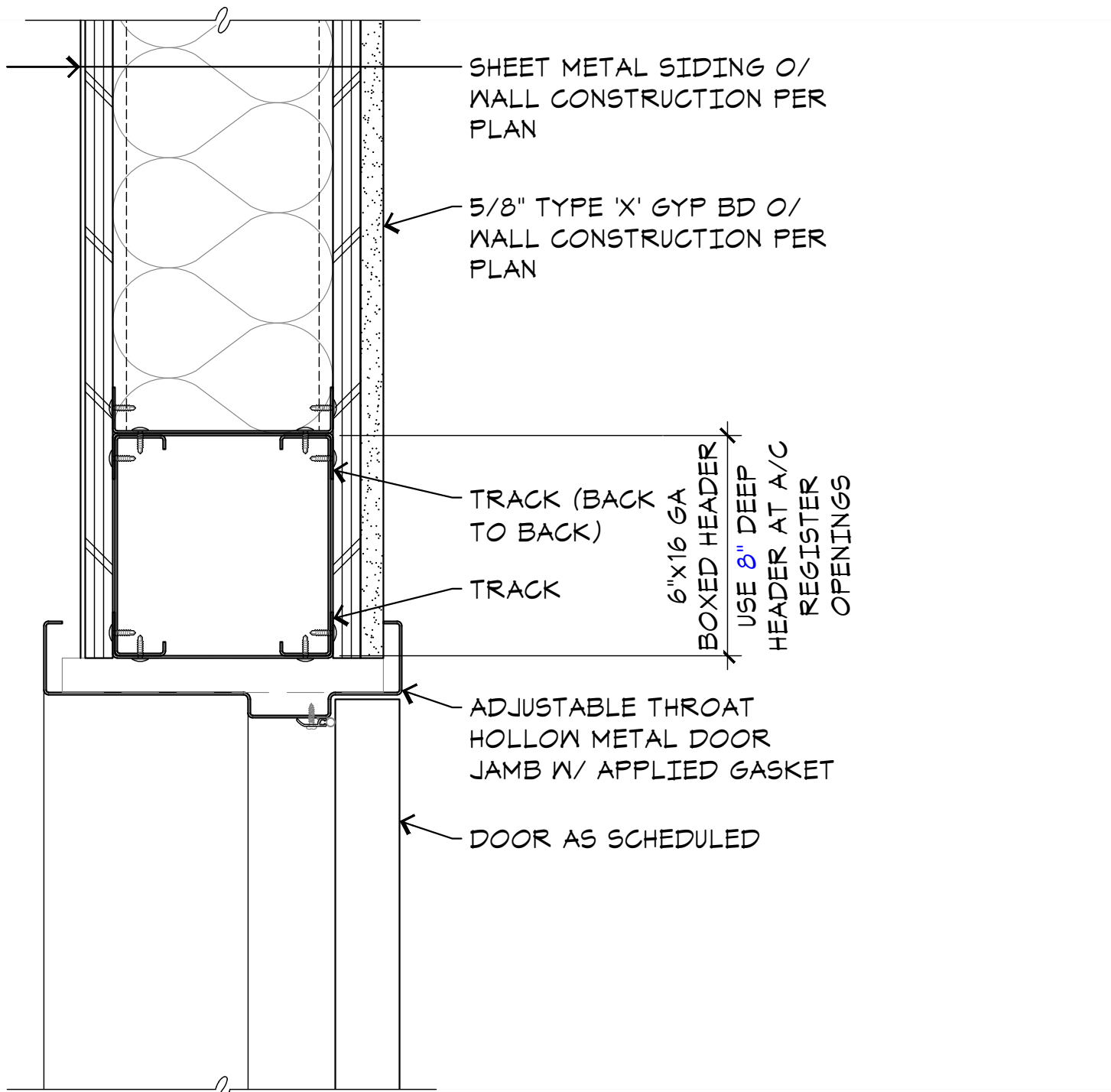


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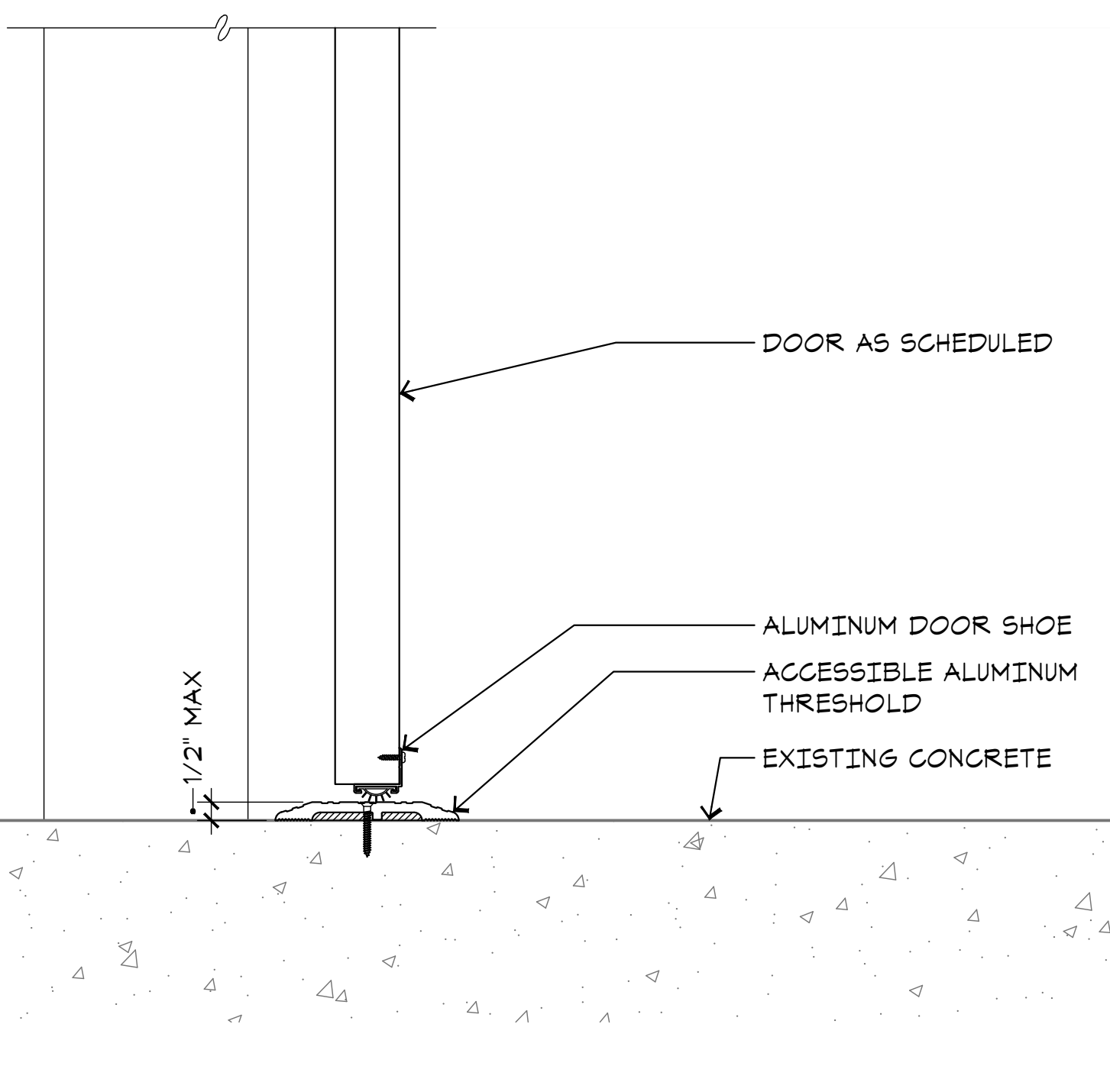
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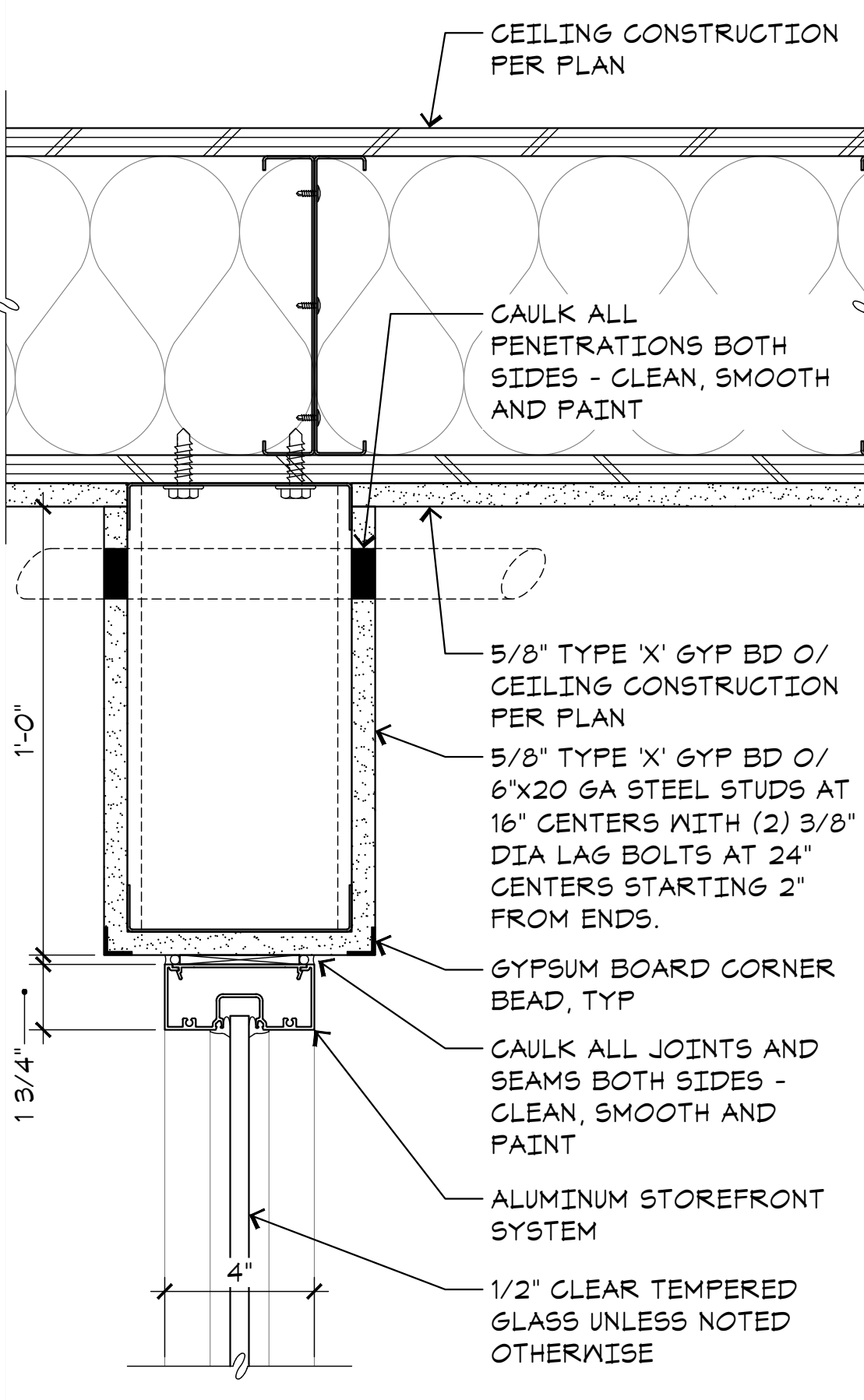
**A1**  
**MANEUVERING CLEARANCES AT DOORS**  
 A4.2 SCALE: 1/2"=1'-0"



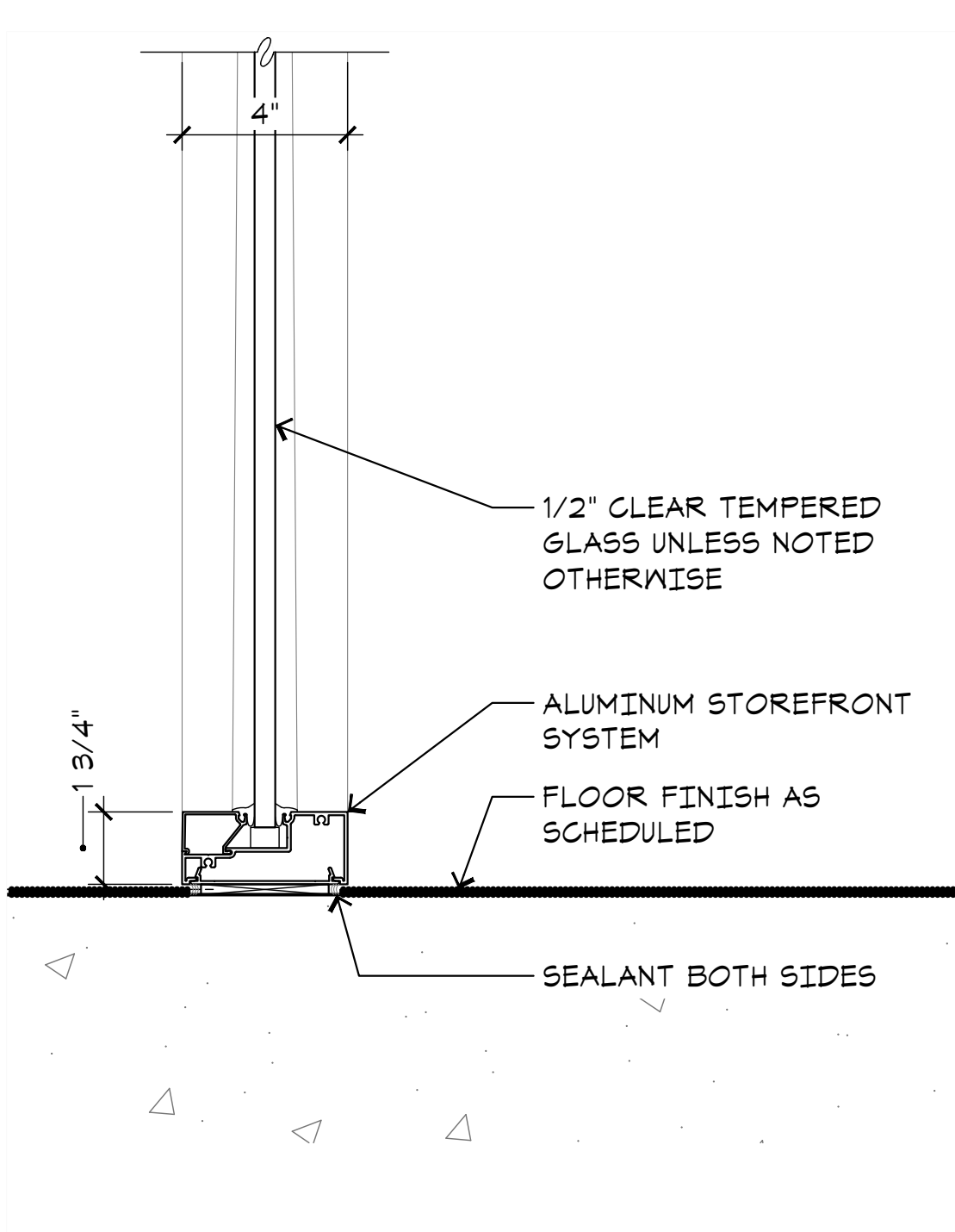
**L9**  
**VERT DETAIL AT DOOR HEAD**  
 A4.2 SCALE: 3"=1'-0"



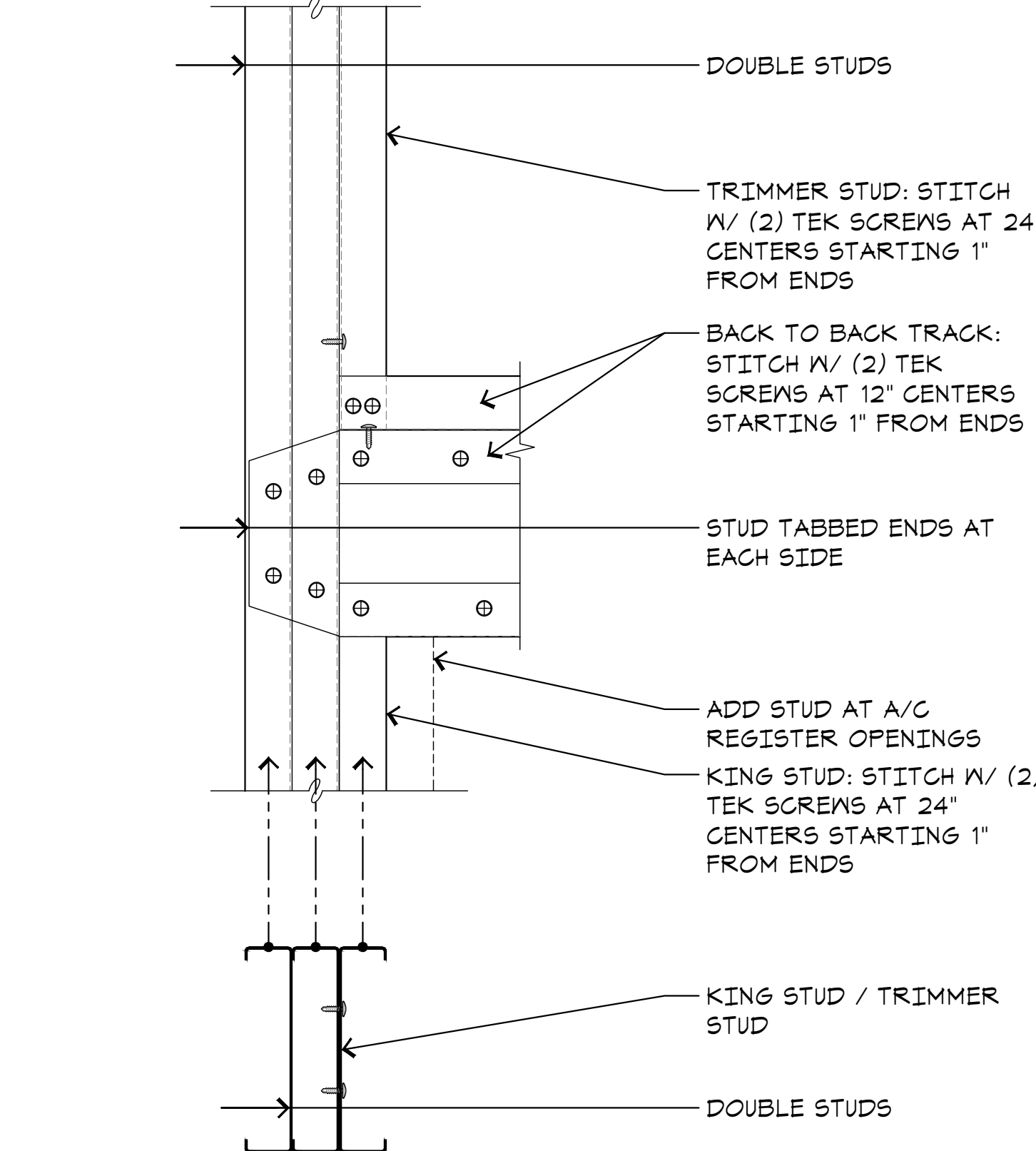
**A9**  
**VERT DETAIL AT DOOR SILL**  
 A4.2 SCALE: 3"=1'-0"



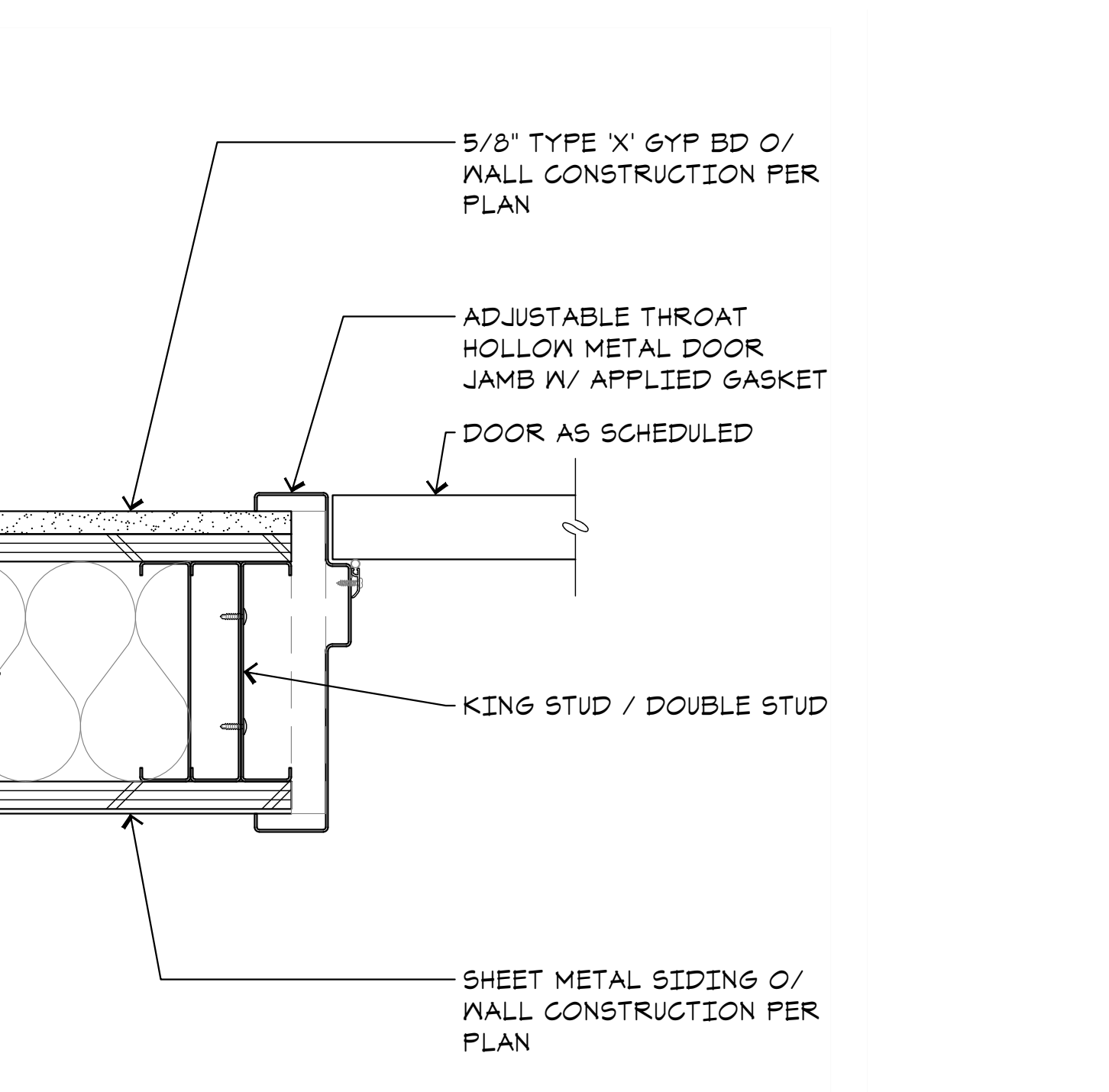
**L17**  
**VERT DETAIL AT SF HEAD**  
 A4.2 SCALE: 3"=1'-0"



**A17**  
**VERT DETAIL AT SF SILL**  
 A4.2 SCALE: 3"=1'-0"



**L23**  
**BOXED HEADER SECTION / PLAN**  
 A4.2 SCALE: 3"=1'-0"



**A23**  
**PLAN DETAIL AT DOOR JAMB**  
 A4.2 SCALE: 3"=1'-0"

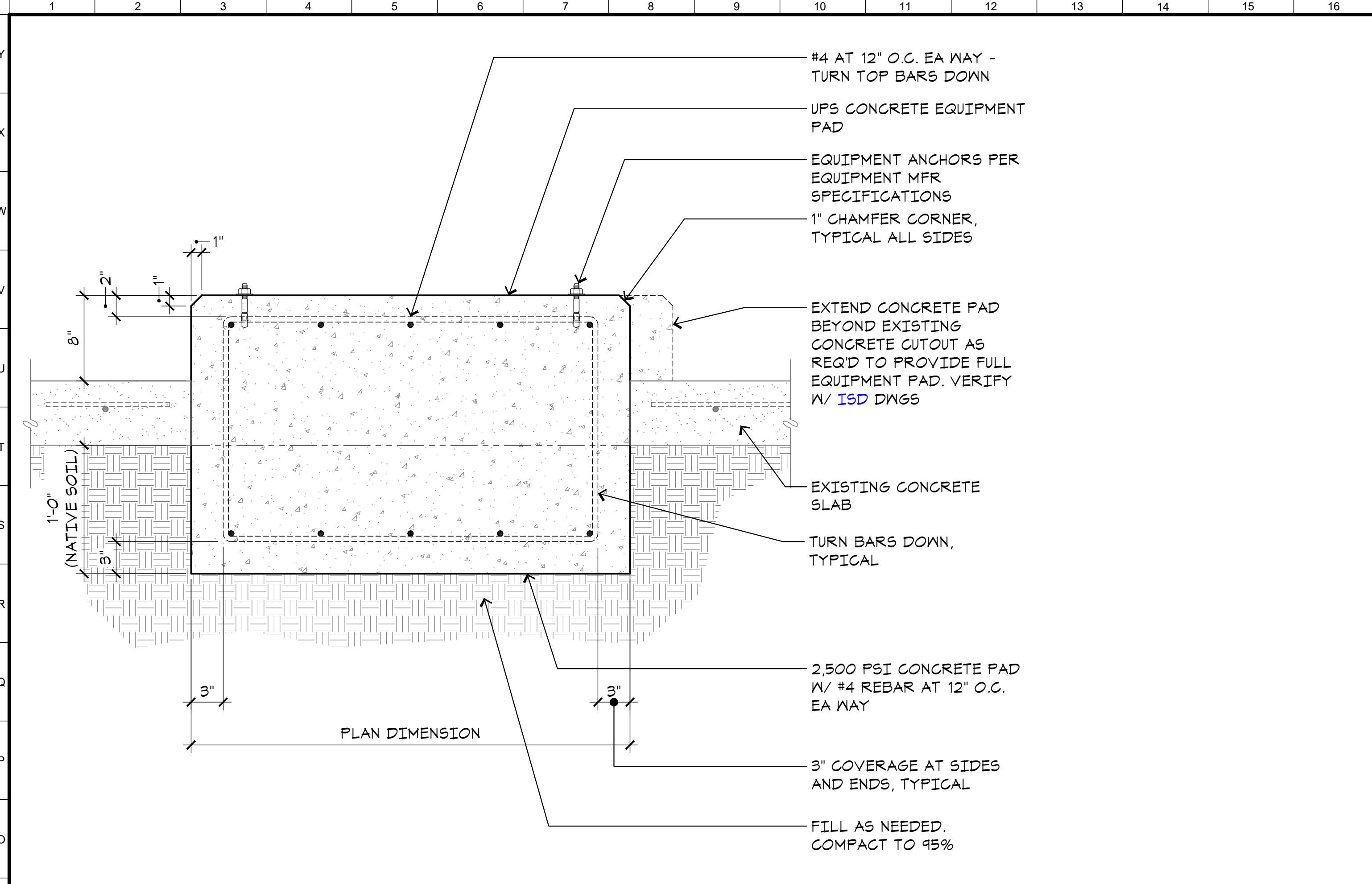


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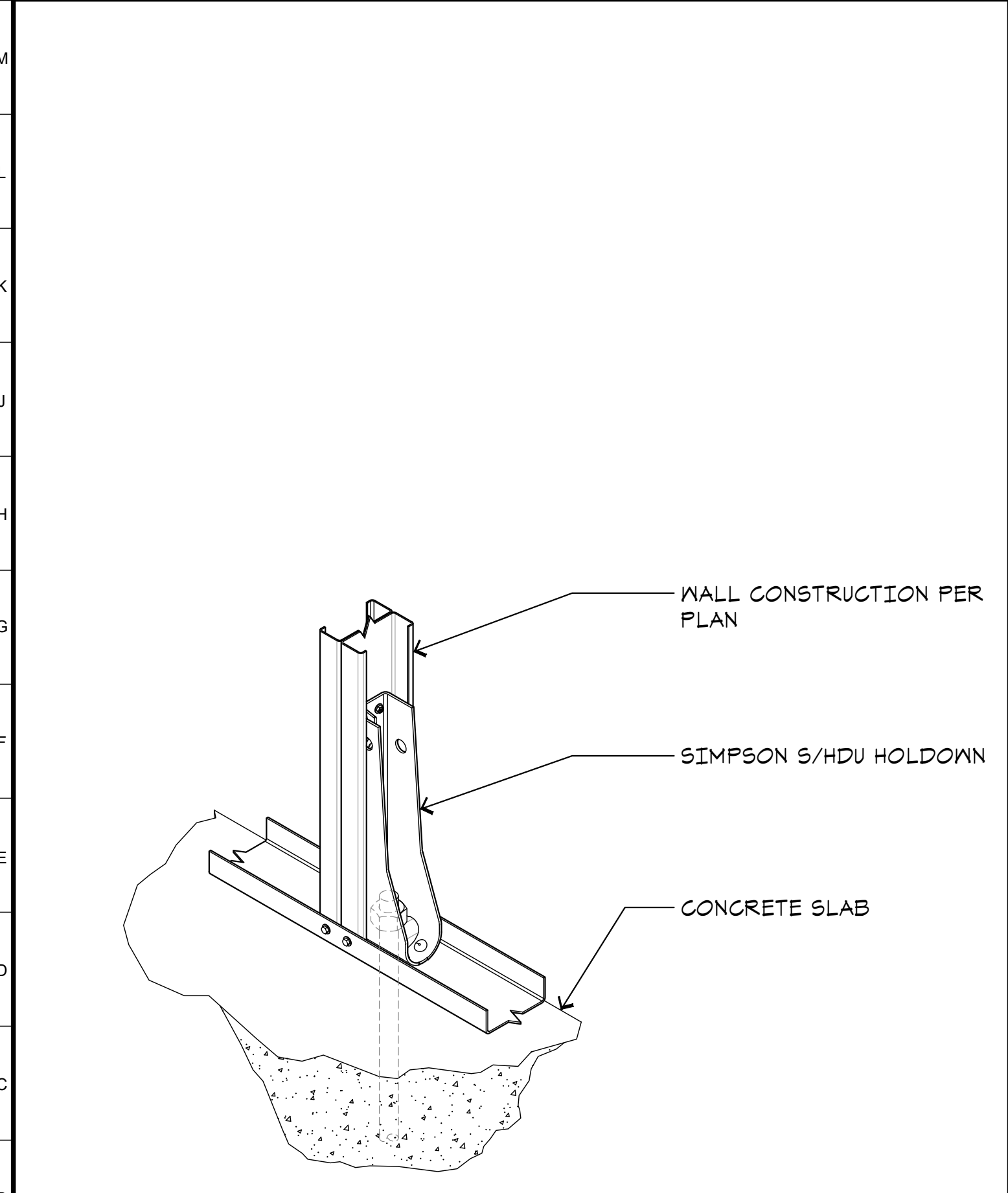
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 DOORS AND WINDOWS



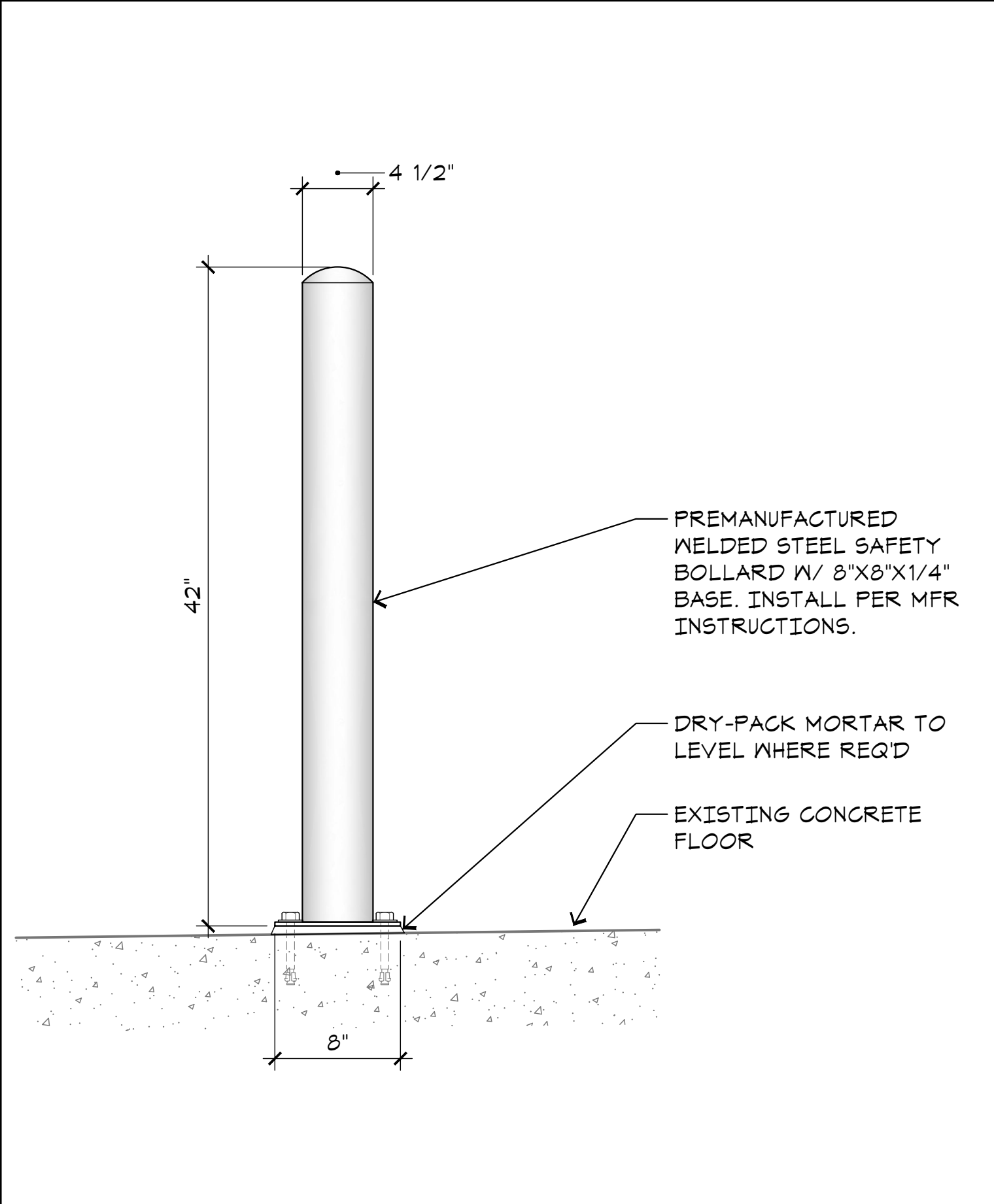
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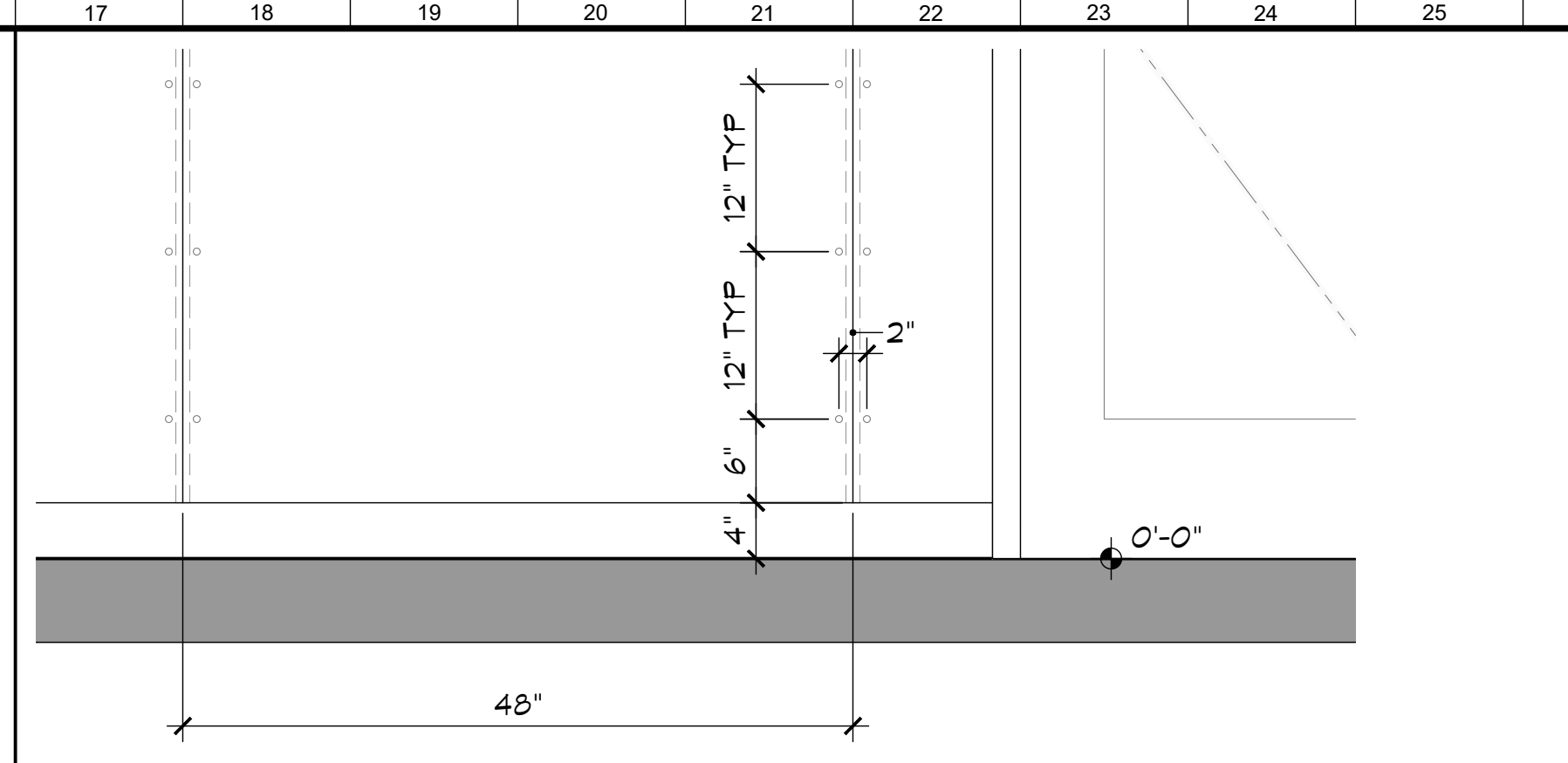
**N1 EQUIPMENT PAD**  
A5.1 SCALE: 1"=1'-0"



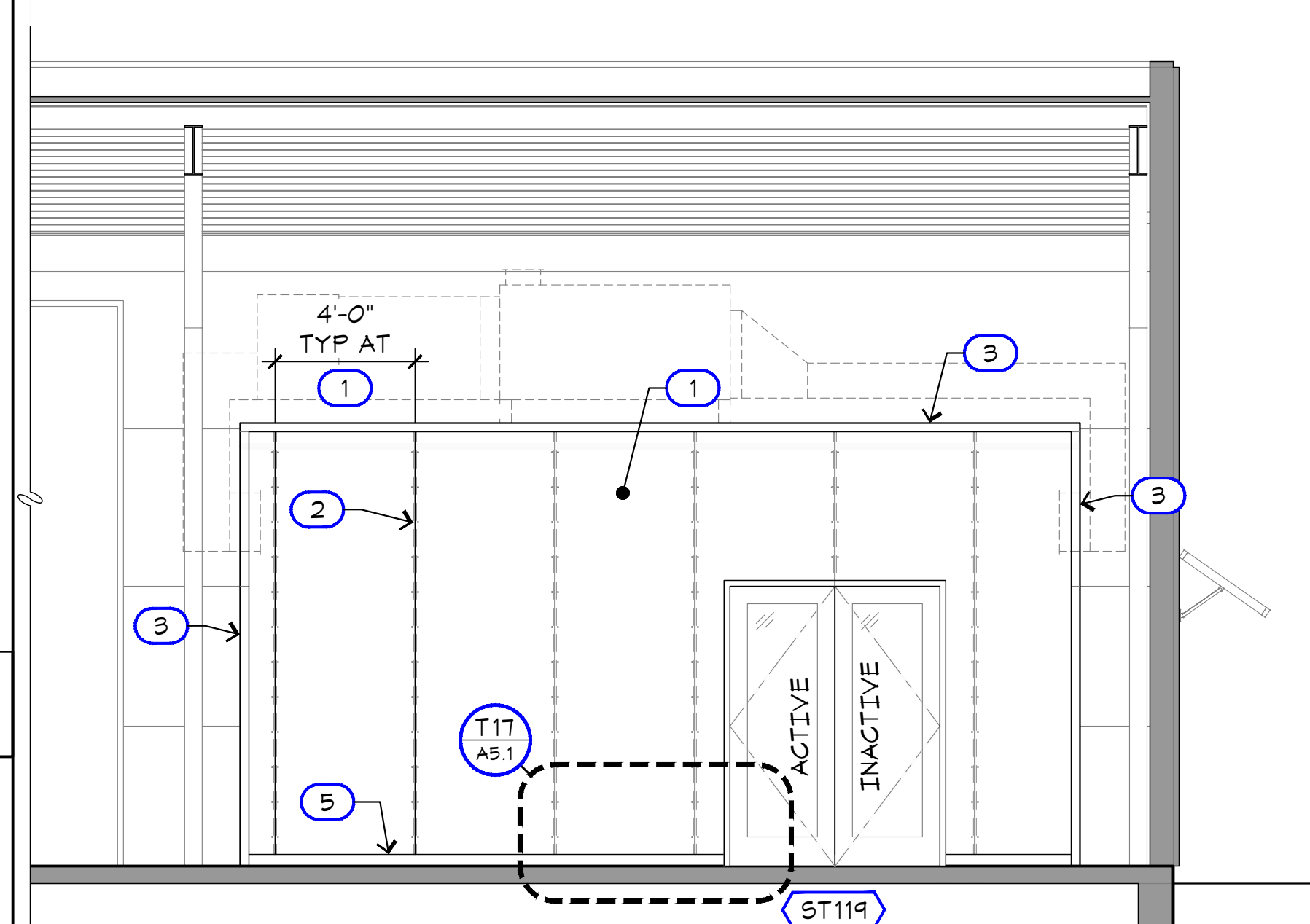
**A1 TYPICAL S/HDU INSTALLATION**  
A5.1 SCALE: NONE



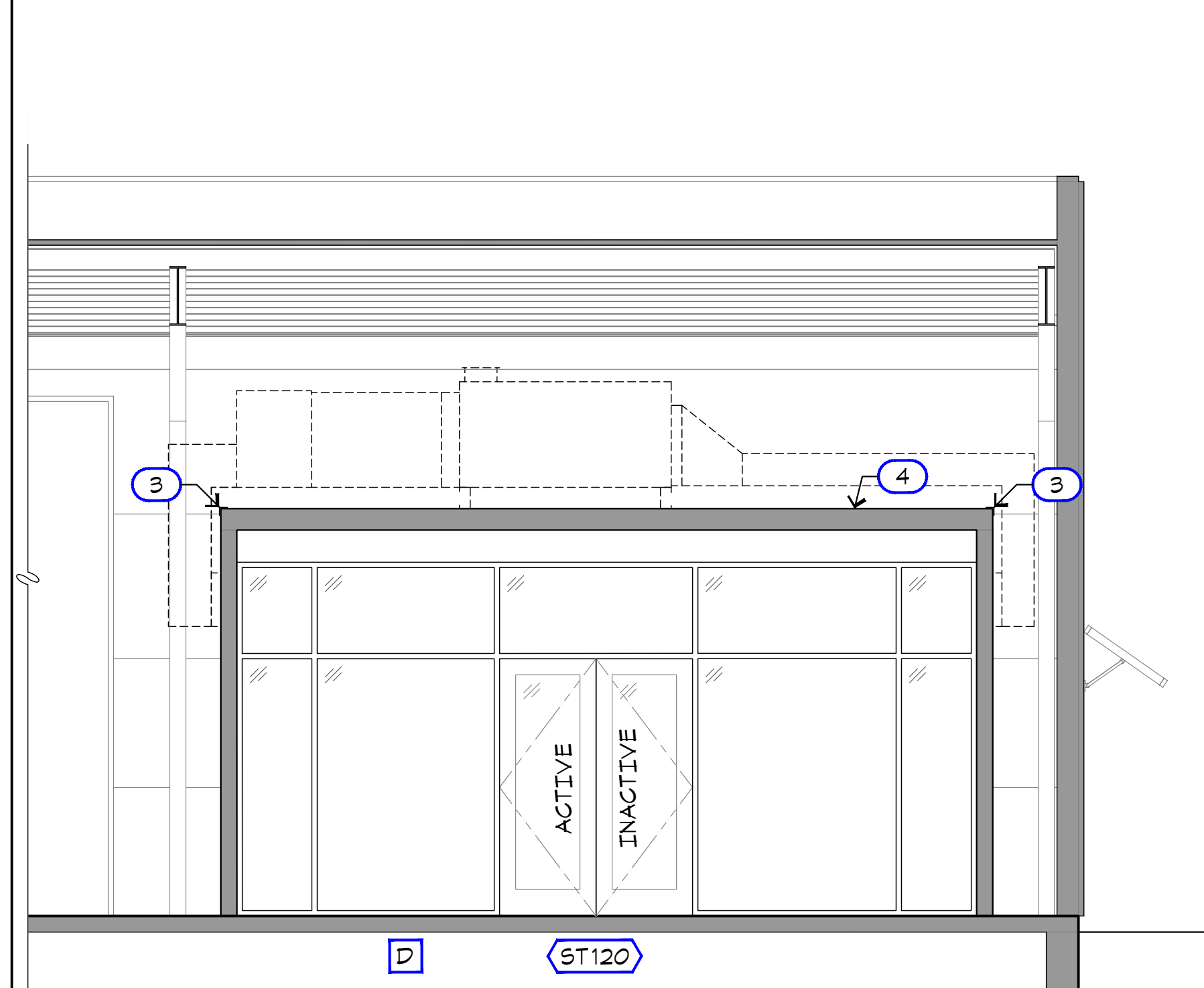
**A9 REMOVABLE BOLLARD DETAIL**  
A5.1 SCALE: 1-1/2"=1'-0"



**T17 DETAIL AT SHEET METAL SEAMS**  
A5.1 SCALE: 1"=1'-0"



**1 COLLATERAL VEHICLE STORAGE**



**2 IT WORK AREA**

**A17 INTERIOR ELEVATIONS**  
A5.1

**KEYNOTES LEGEND**

- 1 NORTH, WEST AND SOUTH SIDES ONLY: PAINTED 48" WIDE X 24 GA EMBOSSED GALV SHEET METAL SIDING. APPLY FAST DRYING SPRAY ADHESIVE (3M 90 OR EQUAL) PRIOR TO ATTACHING WITH SCREWS. SIDING EXTENDS UNDER BASE, CORNER GUARDS AND DOOR JAMBS. SCREW PATTERN SHALL BE AS SHOWN.
- 2 1" WIDE SHEET METAL STRIP BEHIND SHEET METAL SIDING BUTT JOINTS
- 3 3"x3"x96" PRE-DRILLED BRUSHED GALV STEEL 90 DEGREE CORNER GUARD
- 4 3/4" FIRE RETARDANT PLYWOOD DECK ABOVE. TOP OF DECK TO BE PAINTED W/ TWO COATS OF EPOXY BASED PAINT (GREY) PRIOR TO INSTALLING A/C EQUIPMENT
- 5 4" PRE-DRILLED BRUSHED GALV STEEL BASE. FINISH OUT AT CORNER GUARDS AND DOOR JAMBS, TYPICAL
- 6 4" RUBBER WALL BASE



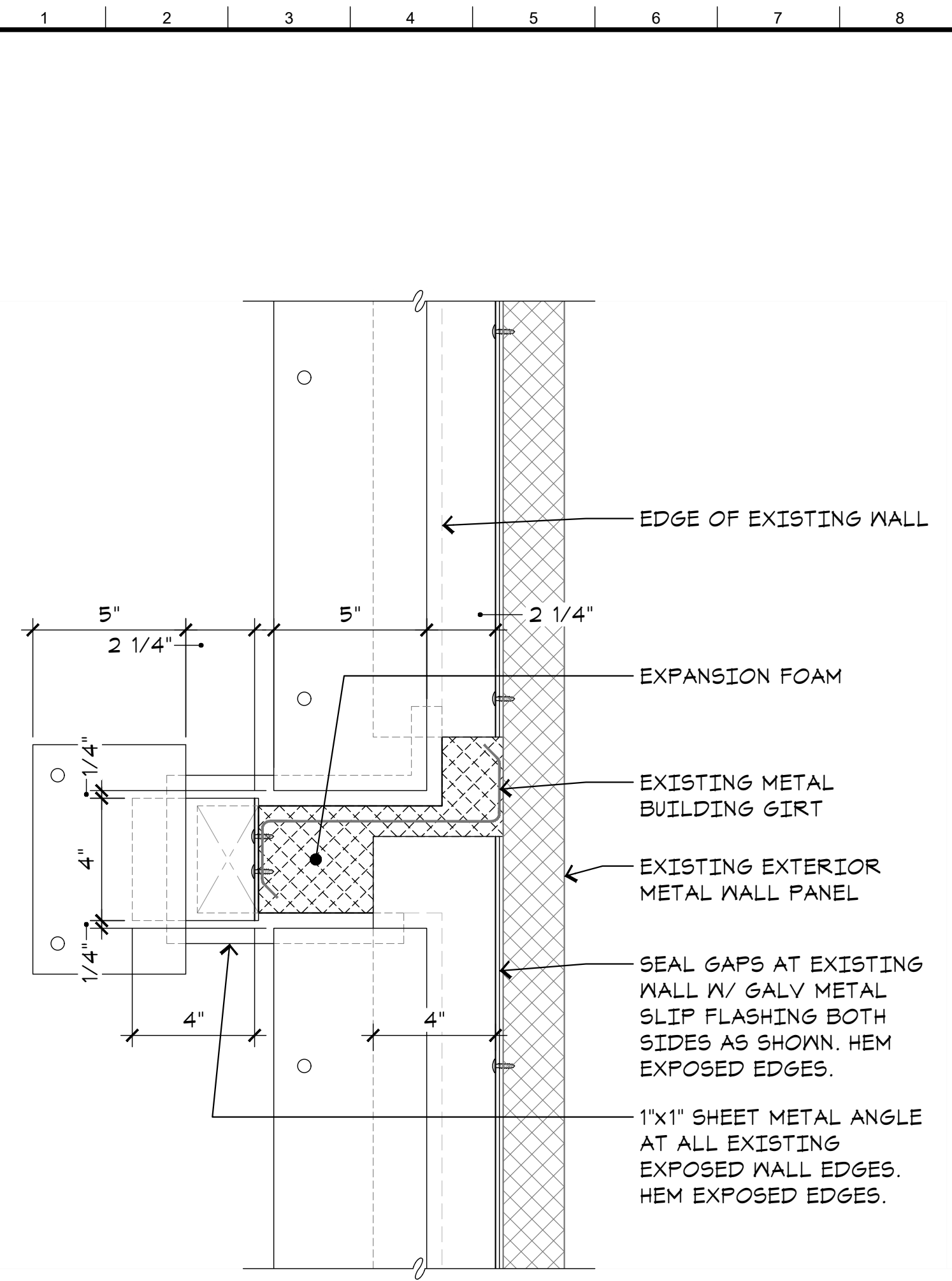
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FILE NAME: 19003-03\_A5-1\_Details

**Sheet Content:**  
DETAILS

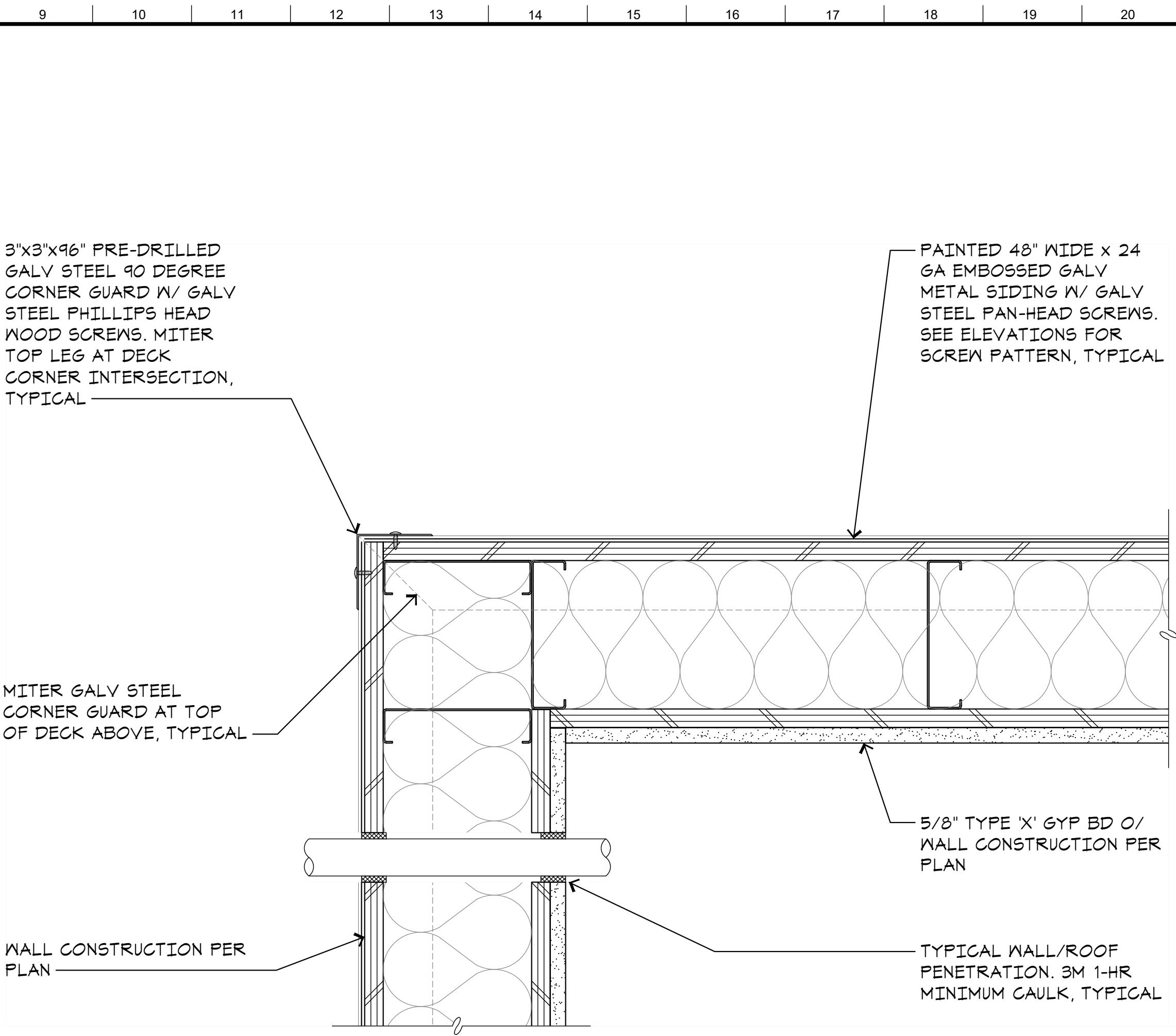
Fresno County Department of Public Works and Planning  
Capital Projects

2220 Tulare Street, 8th Floor  
Fresno, California 93721

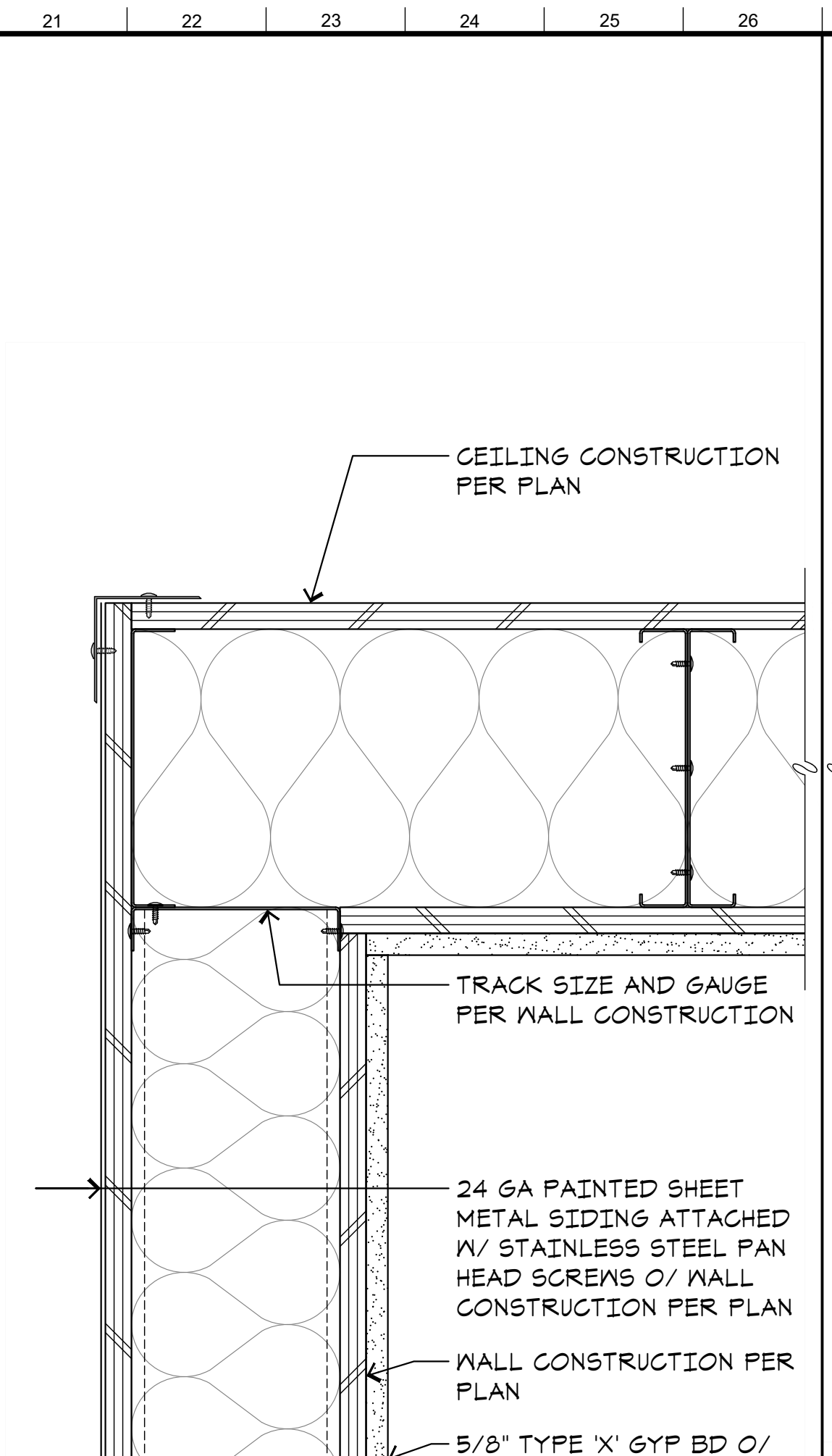
**Sheet No.**  
**A5.1**



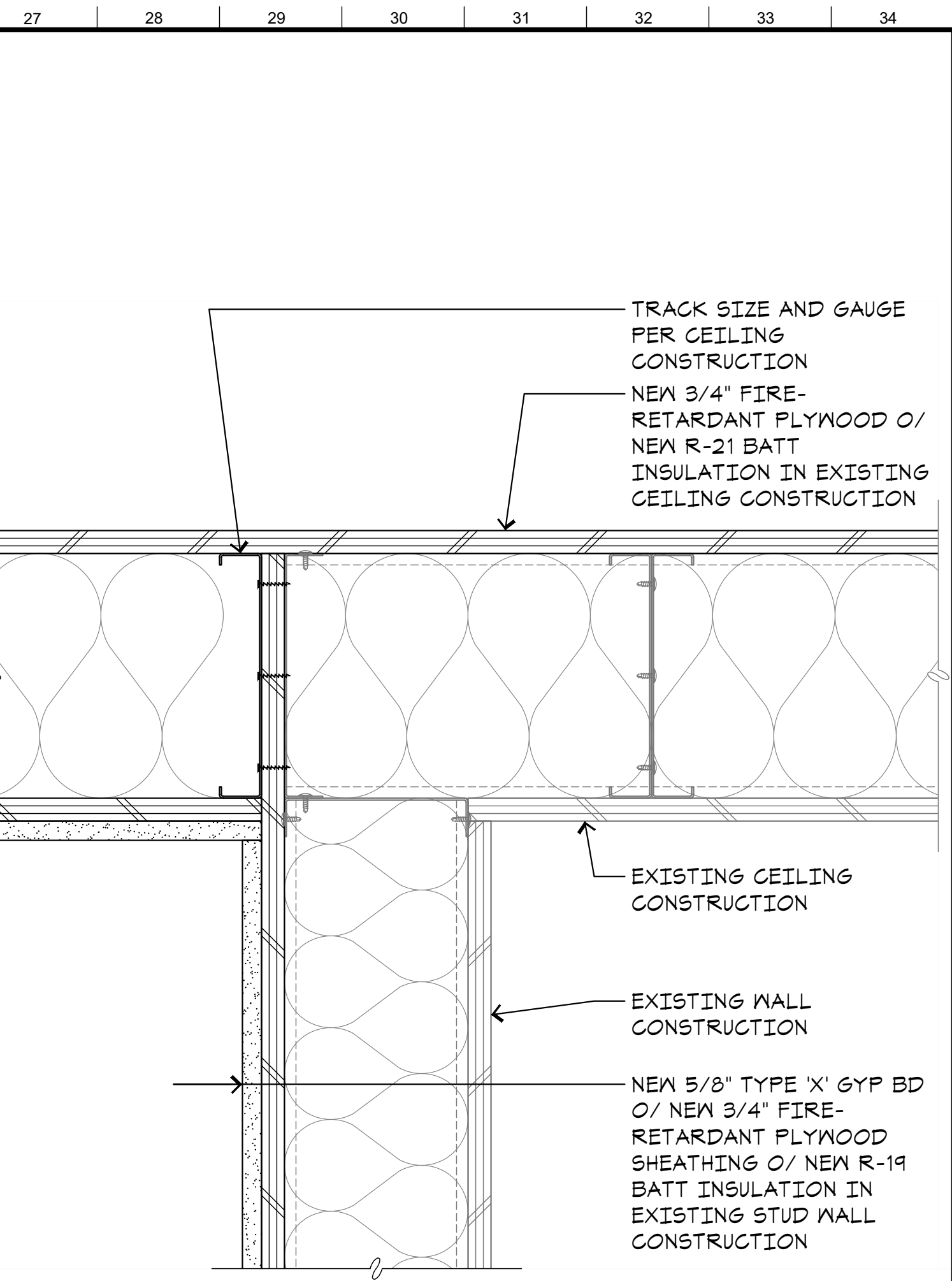
**N1 ELEV AT EXISTING GIRT**  
A5.2 SCALE: 3"=1'-0"



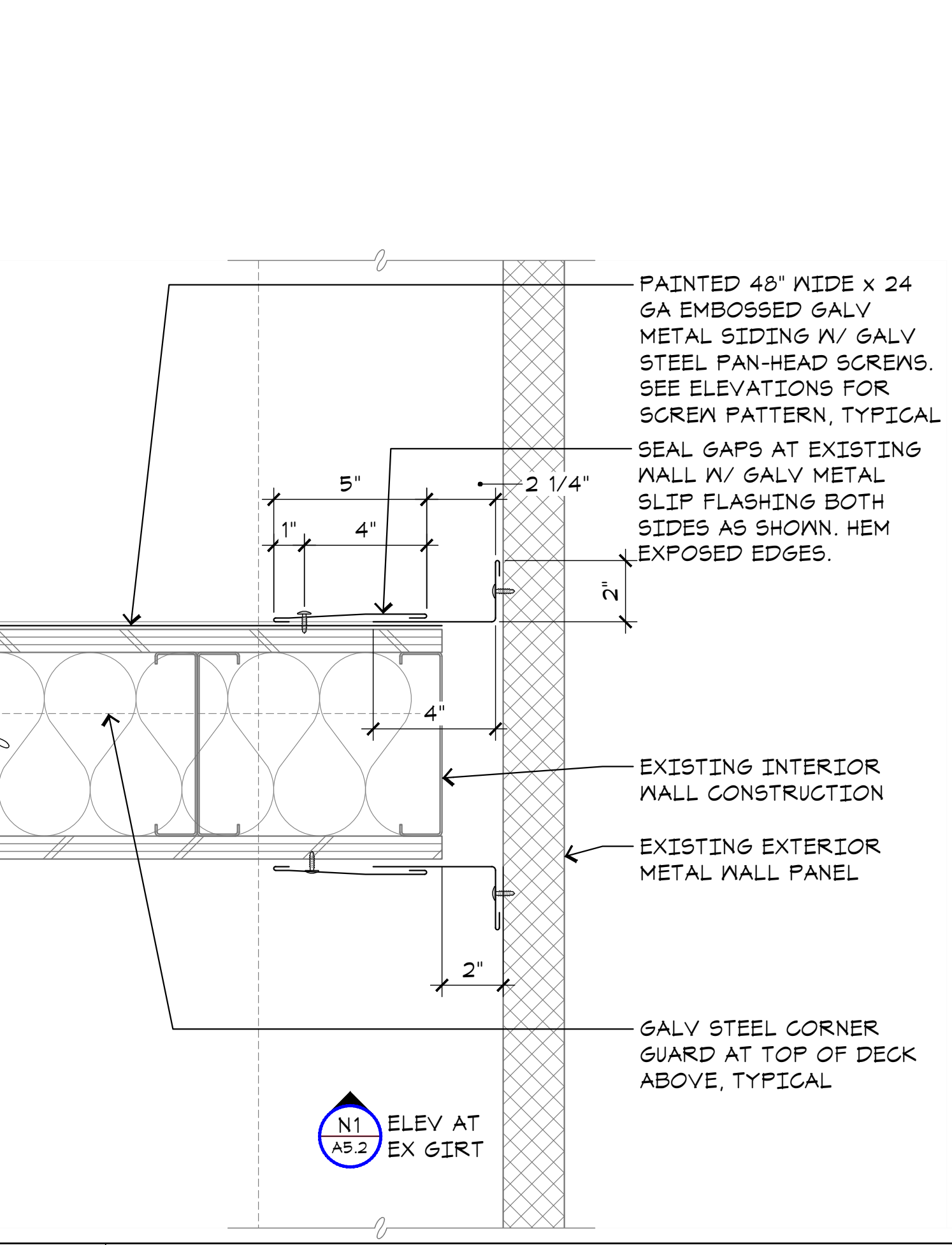
**N9 PLAN DETAIL**  
A5.2 SCALE: 3"=1'-0"



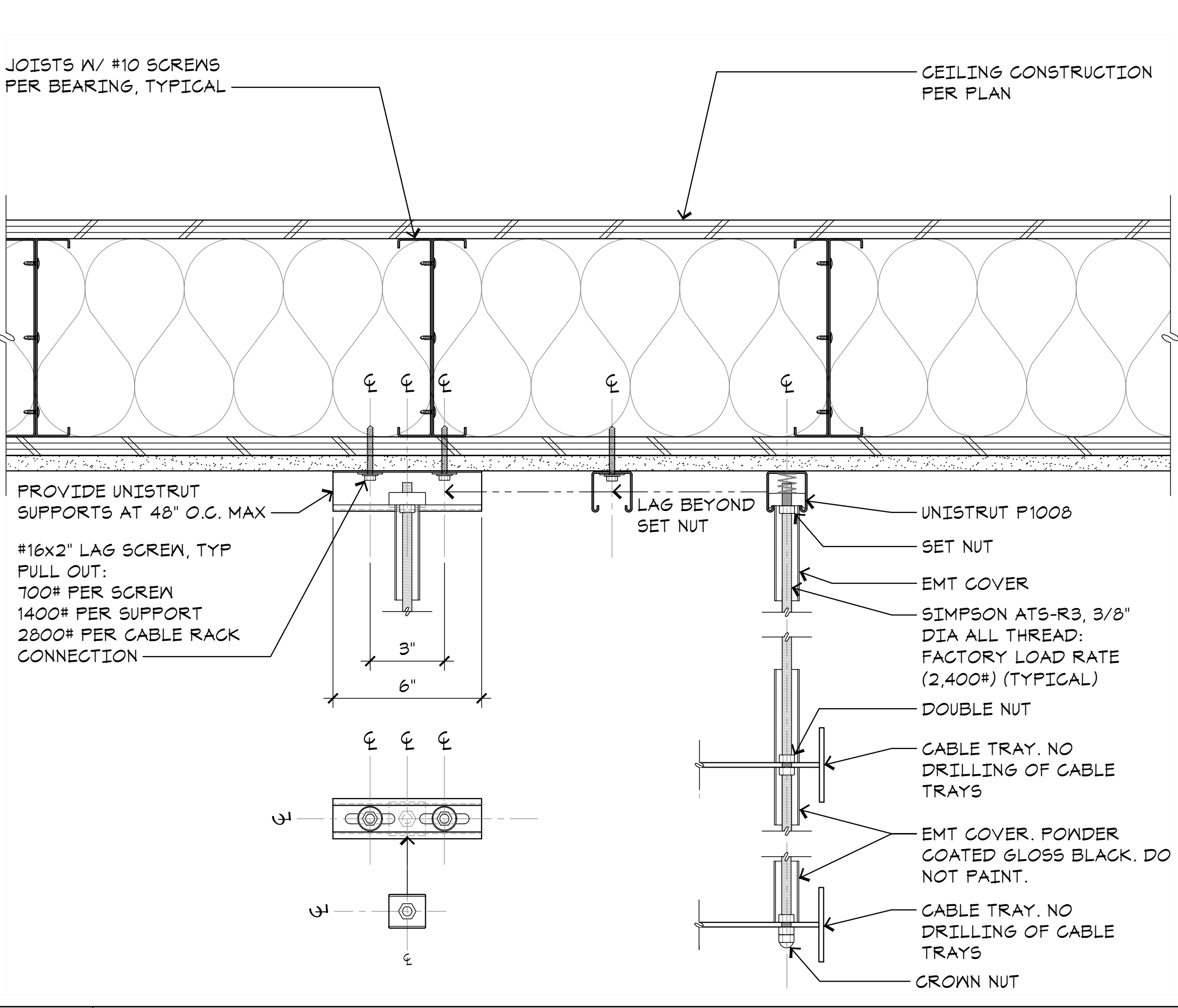
**N27 VERT DETAIL**  
A5.2 SCALE: 3"=1'-0"



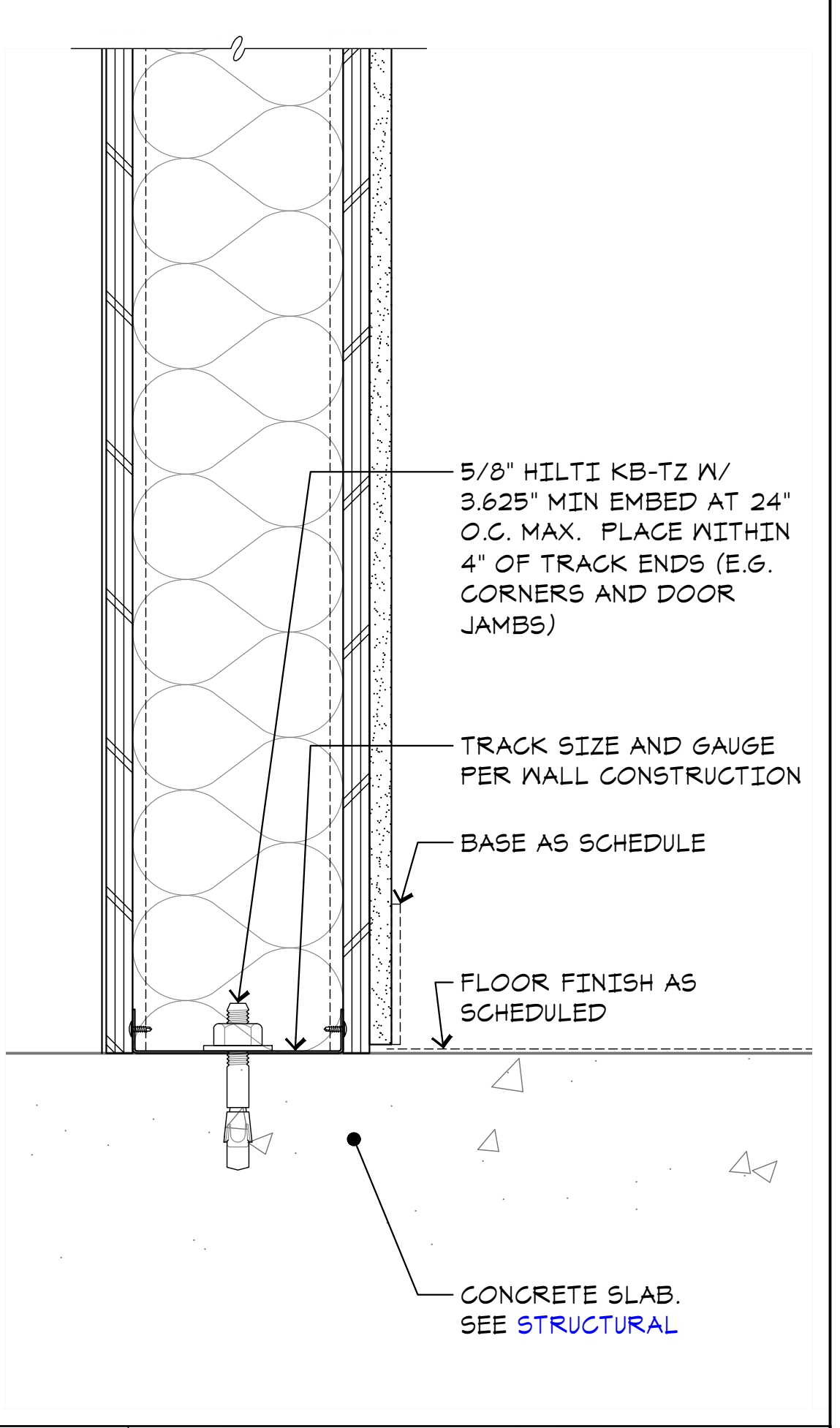
**N27 VERT DETAIL**  
A5.2 SCALE: 3"=1'-0"



**A1 PLAN DETAIL**  
A5.2 SCALE: 3"=1'-0"



**A9 DETAIL AT CABLE TRAY**  
A5.2 SCALE: 3"=1'-0"



**A21 WALL SECTION**  
A5.2 SCALE: 3"=1'-0"

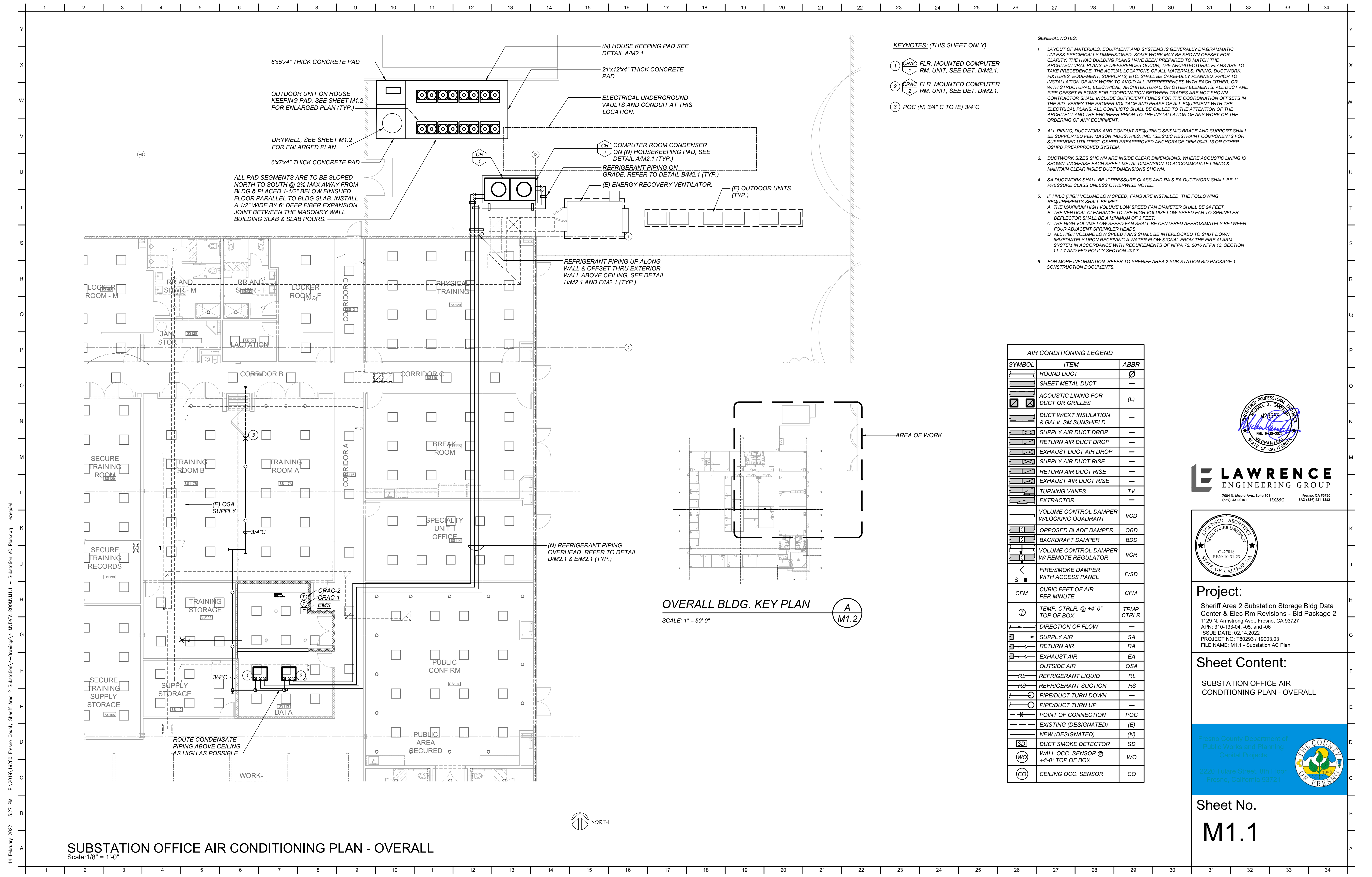
**Project:**  
Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
1129 N. Armstrong Ave., Fresno, CA 93727  
APN: 310-133-04-.05, and -.06  
ISSUE DATE: 02.11.2022  
PROJECT NO: T80293 / 19003.03  
FILE NAME: 19003-03\_A5-2\_Details

**Sheet Content:**  
DETAILS

Fresno County Department of Public Works and Planning  
Capital Projects  
2220 Tulare Street, 8th Floor  
Fresno, California 93721

**Sheet No.**  
**A5.2**





- KEYNOTES: (THIS SHEET ONLY)**
- ① CRAC 1 FLR. MOUNTED COMPUTER RM. UNIT, SEE DET. D/M2.1.
  - ② CRAC 2 FLR. MOUNTED COMPUTER RM. UNIT, SEE DET. D/M2.1.
  - ③ POC (N) 3/4" C TO (E) 3/4"C

- GENERAL NOTES:**
1. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE HVAC BUILDING PLANS HAVE BEEN PREPARED TO MATCH THE ARCHITECTURAL PLANS. IF DIFFERENCES OCCUR, THE ARCHITECTURAL PLANS ARE TO TAKE PRECEDENCE. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL, OR OTHER ELEMENTS. ALL DUCT AND PIPE OFFSET ELBOWS FOR COORDINATION BETWEEN TRADES ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE SUFFICIENT FUNDS FOR THE COORDINATION OFFSETS IN THE BID. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
  2. ALL PIPING, DUCTWORK AND CONDUIT REQUIRING SEISMIC BRACE AND SUPPORT SHALL BE SUPPORTED PER MASON INDUSTRIES, INC. "SEISMIC RESTRAINT COMPONENTS FOR SUSPENDED UTILITIES", OSHPD PREAPPROVED ANCHORAGE OPM-0043-13 OR OTHER OSHPD PREAPPROVED SYSTEM.
  3. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. WHERE ACOUSTIC LINING IS SHOWN, INCREASE EACH SHEET METAL DIMENSION TO ACCOMMODATE LINING & MAINTAIN CLEAR INSIDE DUCT DIMENSIONS SHOWN.
  4. SA DUCTWORK SHALL BE 1" PRESSURE CLASS AND RA & EA DUCTWORK SHALL BE 1" PRESSURE CLASS UNLESS OTHERWISE NOTED.
  5. IF HVLC (HIGH VOLUME LOW SPEED) FANS ARE INSTALLED, THE FOLLOWING REQUIREMENTS SHALL BE MET:
    - A. THE MAXIMUM HIGH VOLUME LOW SPEED FAN DIAMETER SHALL BE 24 FEET
    - B. THE VERTICAL CLEARANCE TO THE HIGH VOLUME LOW SPEED FAN TO SPRINKLER DEFLECTOR SHALL BE A MINIMUM OF 3 FEET.
    - C. THE HIGH VOLUME LOW SPEED FAN SHALL BE CENTERED APPROXIMATELY BETWEEN FOUR ADJACENT SPRINKLER HEADS.
    - D. ALL HIGH VOLUME LOW SPEED FANS SHALL BE INTERLOCKED TO SHUT DOWN IMMEDIATELY UPON RECEIVING A WATER FLOW SIGNAL FROM THE FIRE ALARM SYSTEM IN ACCORDANCE WITH REQUIREMENTS OF NFPA 72, 2016 NFPA 13, SECTION 11.1.7 AND FPD POLICY SECTION 407.7.
  6. FOR MORE INFORMATION, REFER TO SHERIFF AREA 2 SUB-STATION BID PACKAGE 1 CONSTRUCTION DOCUMENTS.

AIR CONDITIONING LEGEND		
SYMBOL	ITEM	ABBR
	ROUND DUCT	Ø
	SHEET METAL DUCT	—
	ACOUSTIC LINING FOR DUCT OR GRILLES	(L)
	DUCT WEXT INSULATION & GALV. SM SUNSHIELD	—
	SUPPLY AIR DUCT DROP	—
	RETURN AIR DUCT DROP	—
	EXHAUST DUCT AIR DROP	—
	SUPPLY AIR DUCT RISE	—
	RETURN AIR DUCT RISE	—
	EXHAUST AIR DUCT RISE	—
	TURNING VANES	TV
	EXTRACTOR	—
	VOLUME CONTROL DAMPER W/LOCKING QUADRANT	VCD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
	VOLUME CONTROL DAMPER W/ REMOTE REGULATOR	VCR
	FIRE/SMOKE DAMPER WITH ACCESS PANEL	F/SD
	CUBIC FEET OF AIR PER MINUTE	CFM
	TEMP. CTRL. @ +4'-0" TOP OF BOX	TEMP. CTRLR.
	DIRECTION OF FLOW	—
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EA
	OUTSIDE AIR	OSA
	REFRIGERANT LIQUID	RL
	REFRIGERANT SUCTION	RS
	PIPE/DUCT TURN DOWN	—
	PIPE/DUCT TURN UP	—
	POINT OF CONNECTION	POC
	EXISTING (DESIGNATED)	(E)
	NEW (DESIGNATED)	(N)
	DUCT SMOKE DETECTOR	SD
	WALL OCC. SENSOR @ +4'-0" TOP OF BOX.	WO
	CEILING OCC. SENSOR	CO

**LAWRENCE ENGINEERING GROUP**  
 7084 N. Maple Ave., Suite 101 Fresno, CA 93720  
 (559) 431-0101 19280 FAX (559) 431-1342

**ARCHITECT**  
 ANGELO DIAMONDI  
 C-27818  
 REN: 10-31-23  
 STATE OF CALIFORNIA

**Project:**  
 Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04-.05, and -.06  
 ISSUE DATE: 02.14.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: M1.1 - Substation AC Plan

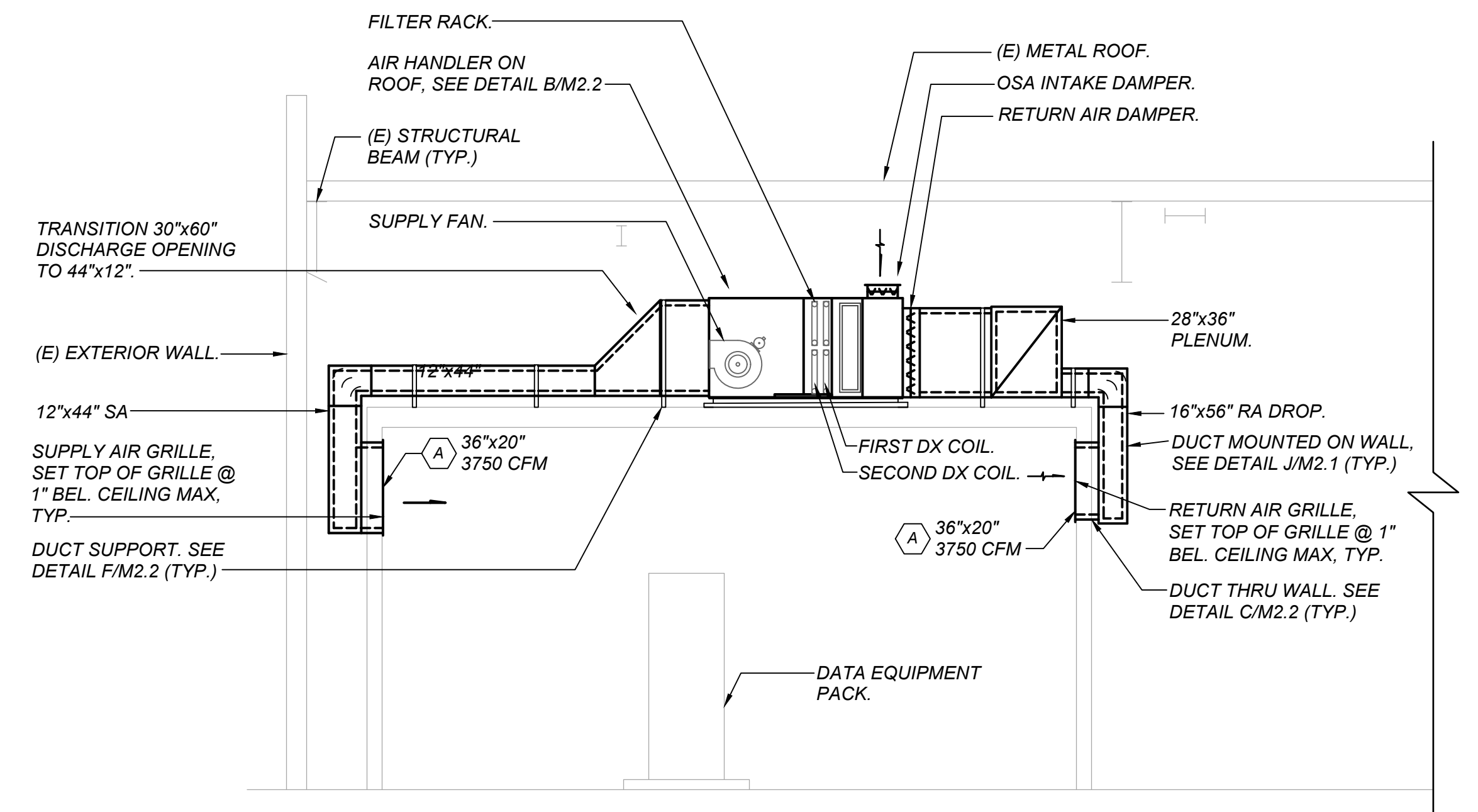
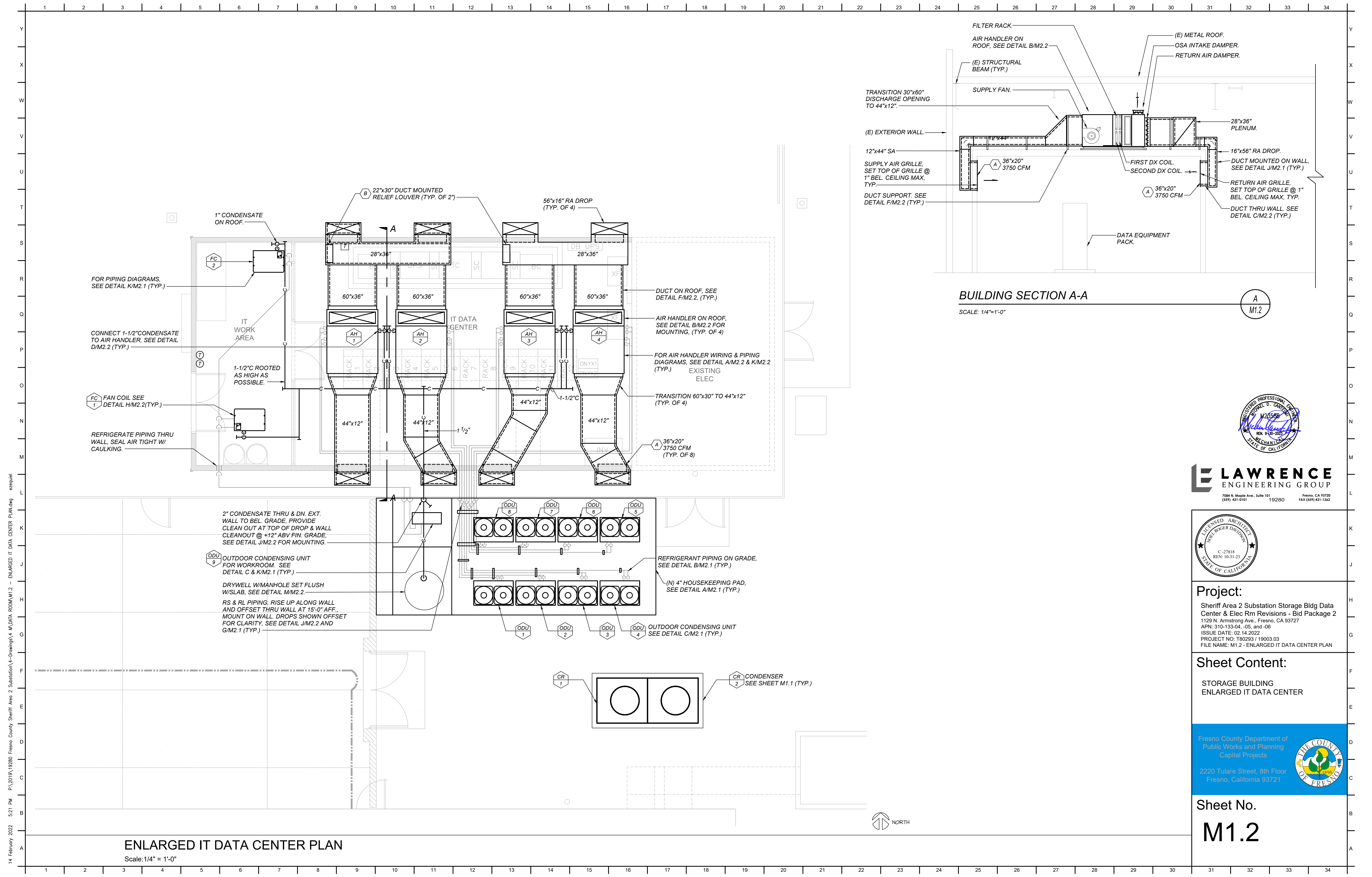
**Sheet Content:**  
 SUBSTATION OFFICE AIR CONDITIONING PLAN - OVERALL

Fresno County Department of Public Works and Planning  
 Capital Projects  
 2220 Tulare Street, 8th Floor  
 Fresno, California 93721

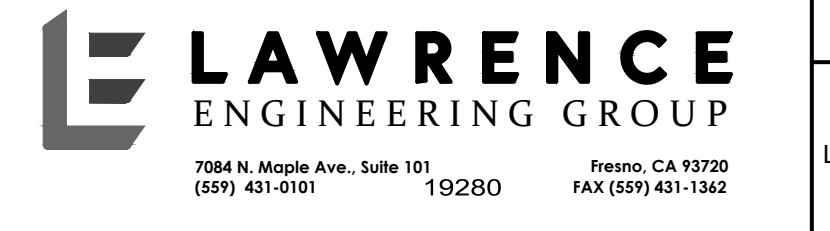
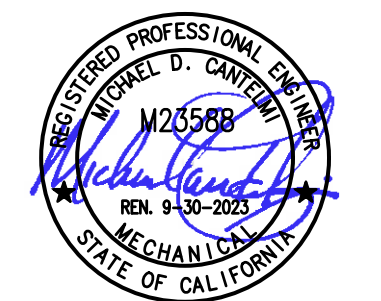
**Sheet No.**  
**M1.1**

14 February 2022 5:27 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\4-MEDIA ROOM\M1.1 - Substation AC Plan.dwg ezexjuel

**SUBSTATION OFFICE AIR CONDITIONING PLAN - OVERALL**  
 Scale: 1/8" = 1'-0"



**BUILDING SECTION A-A**  
SCALE: 1/4"=1'-0"



**Project:**  
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 ISSUE DATE: 02.14.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: M1.2 - ENLARGED IT DATA CENTER PLAN

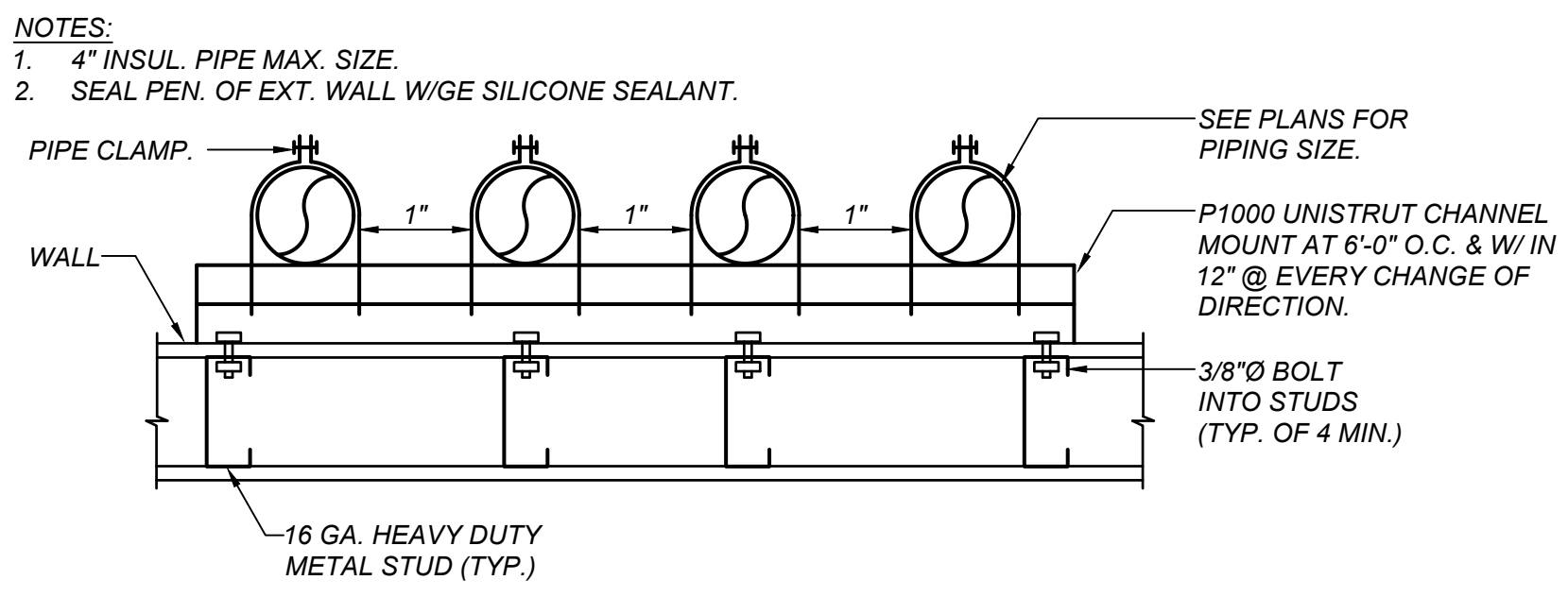
**Sheet Content:**  
 STORAGE BUILDING  
 ENLARGED IT DATA CENTER



**Sheet No.**  
**M1.2**

14 February 2022 5:21 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\4-Drawings\M1.2 - ENLARGED IT DATA CENTER PLAN.dwg ezequiel

**ENLARGED IT DATA CENTER PLAN**  
 Scale: 1/4" = 1'-0"

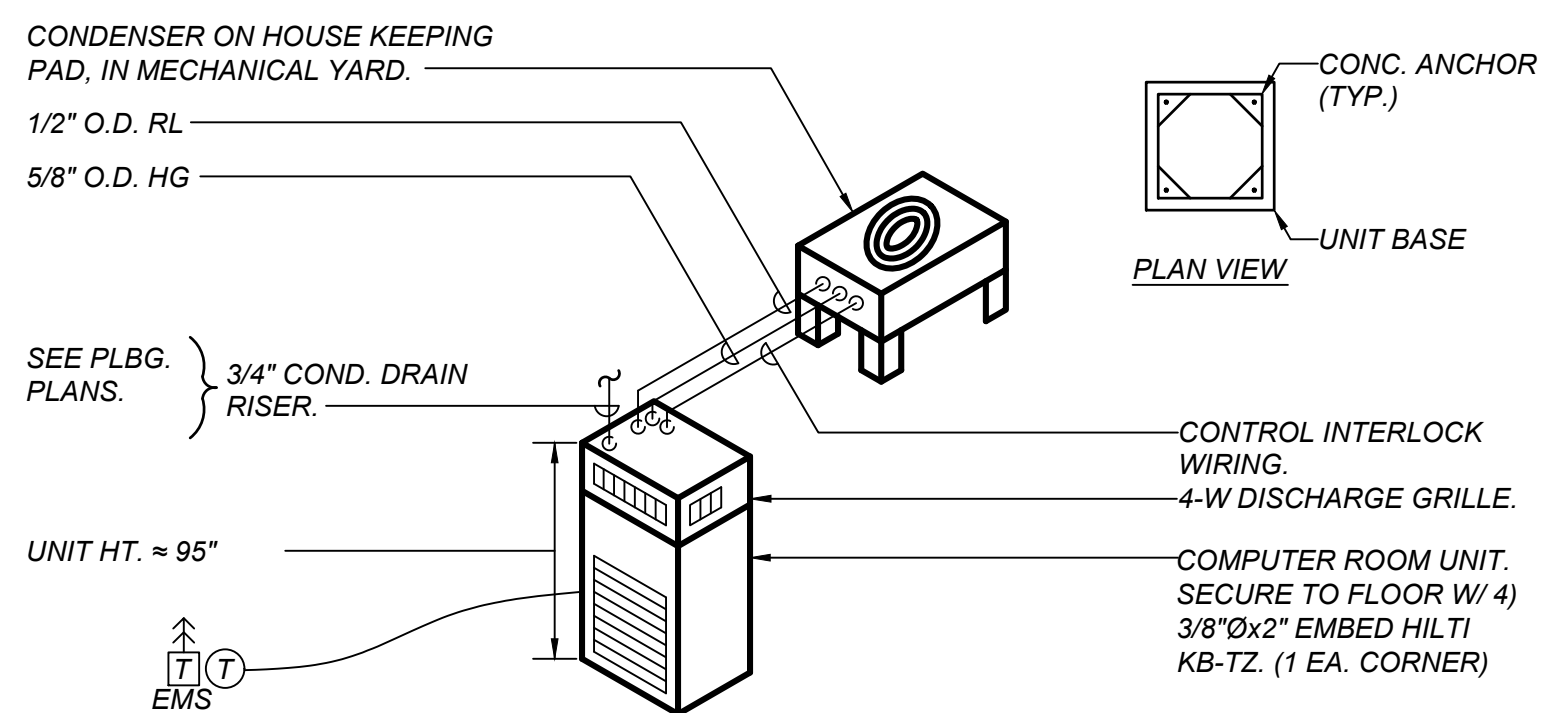


**VERT. PIPE SUPPORT ON WALL DETAIL**

SCALE: NONE

MP082

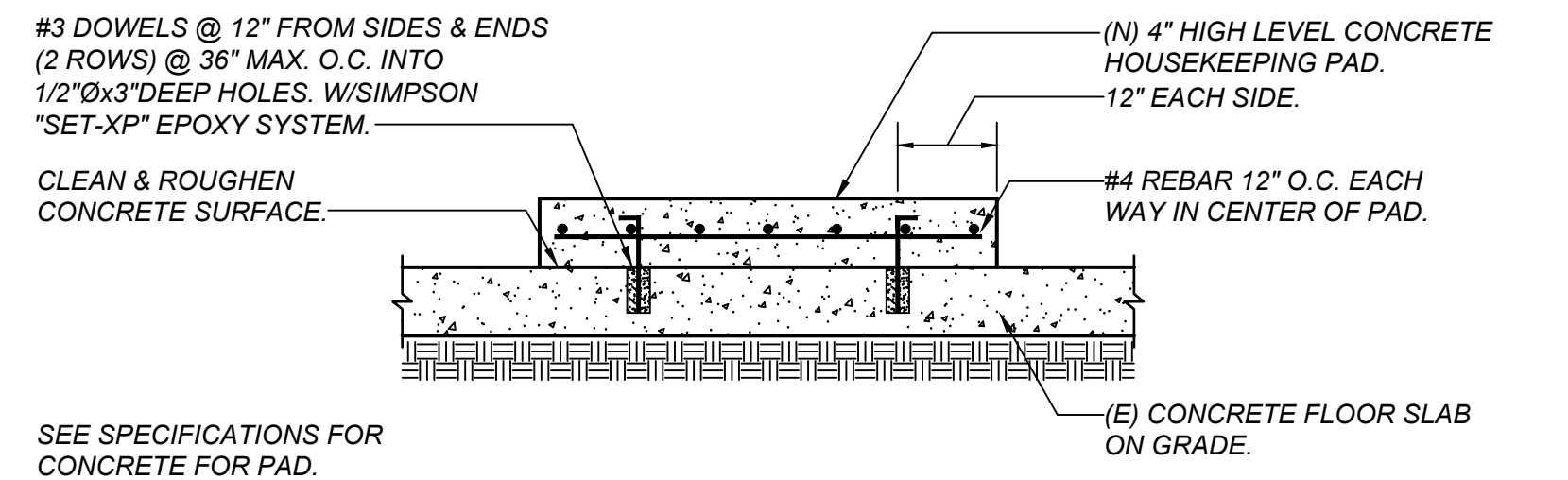
**H**  
**M2.1**



**CRAC UNIT MOUNTING DETAIL**

SCALE: NONE

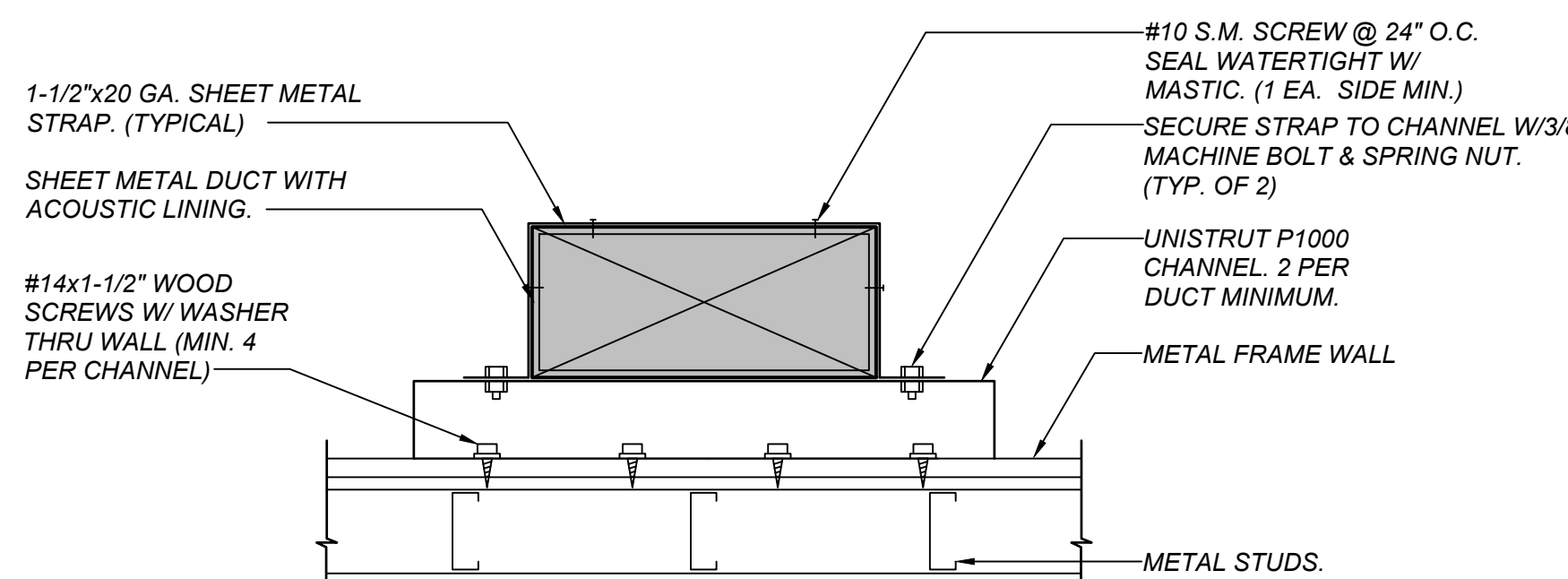
**D**  
**M2.1**



**HOUSEKEEPING PAD DETAIL**

SCALE: NONE

**A**  
**M2.1**

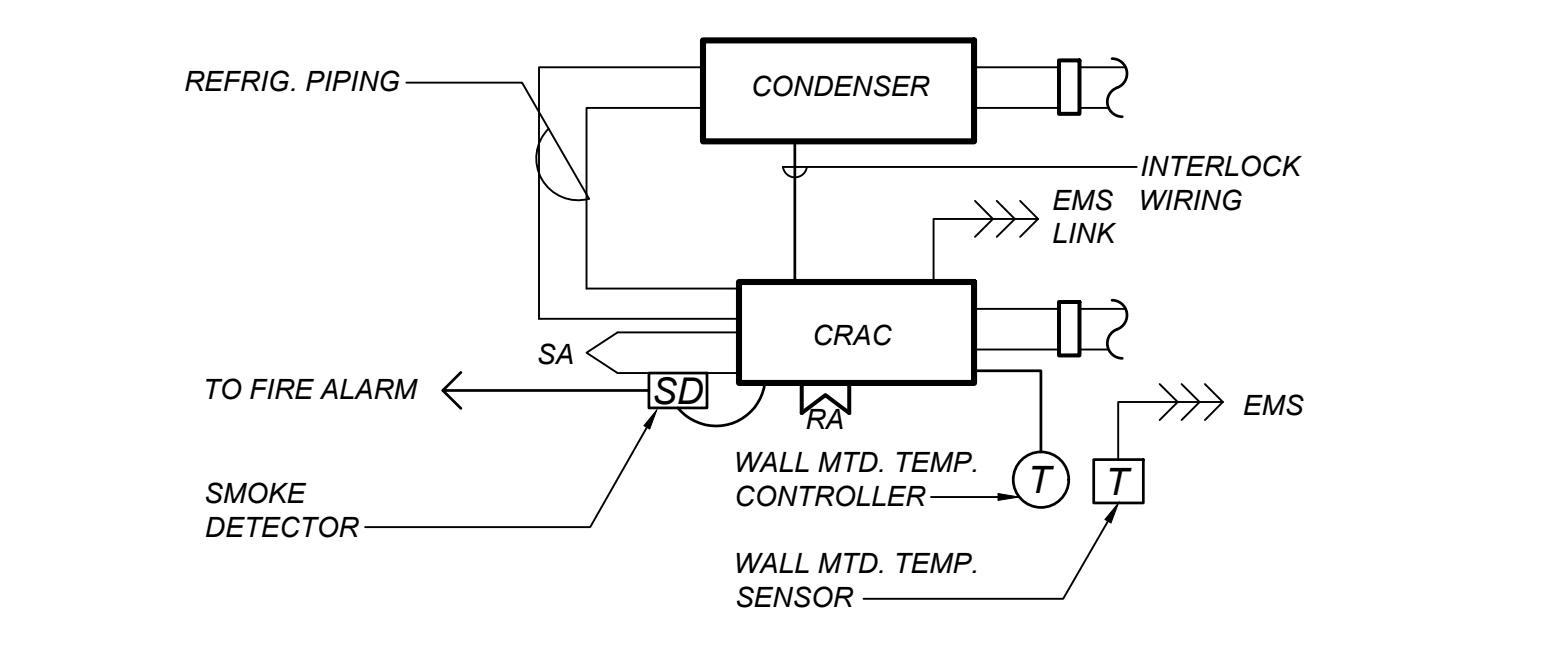


**DUCT ON WALL SUPPORT DETAIL**

SCALE: NONE

MD084

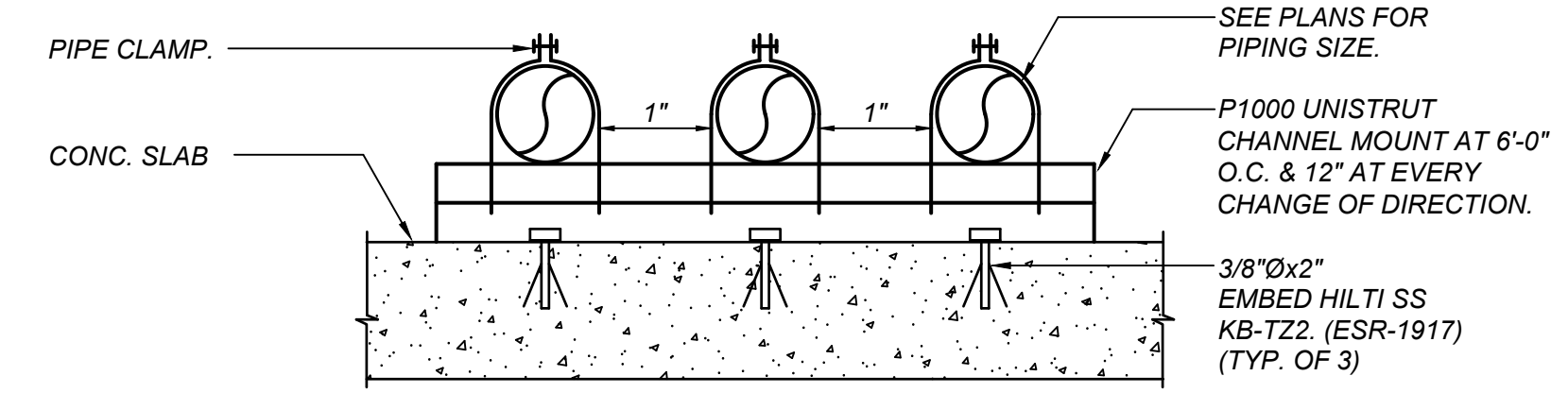
**J**  
**M2.1**



**CRAC SYSTEM DIAGRAM**

SCALE: NONE

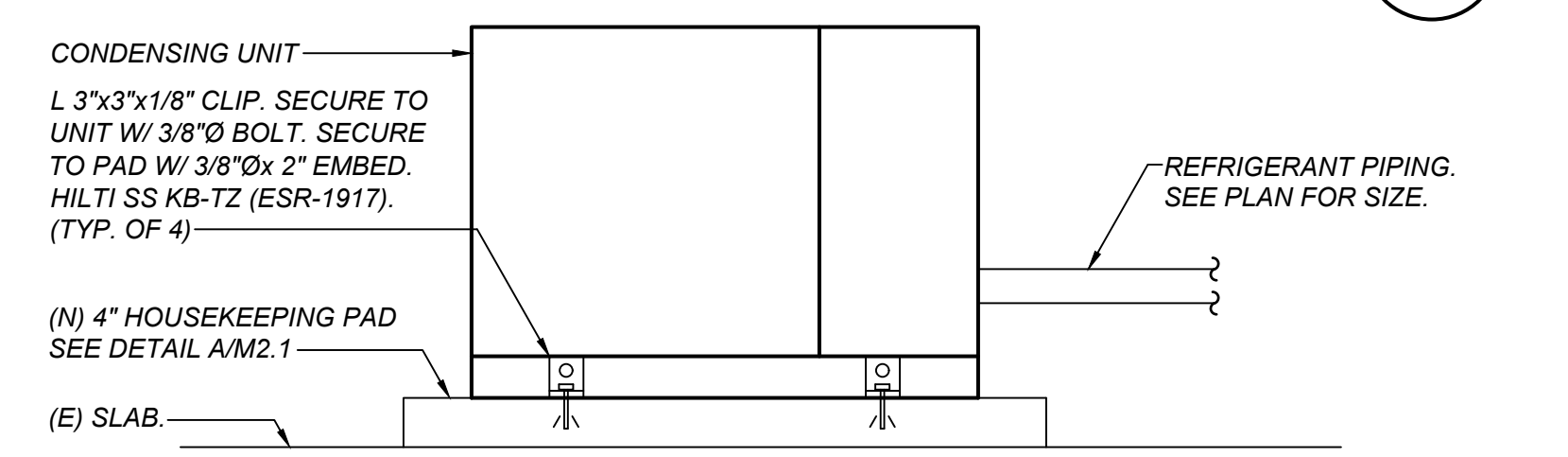
**E**  
**M2.1**



**PIPE SUPPORT ON GRADE DETAIL**

SCALE: NONE

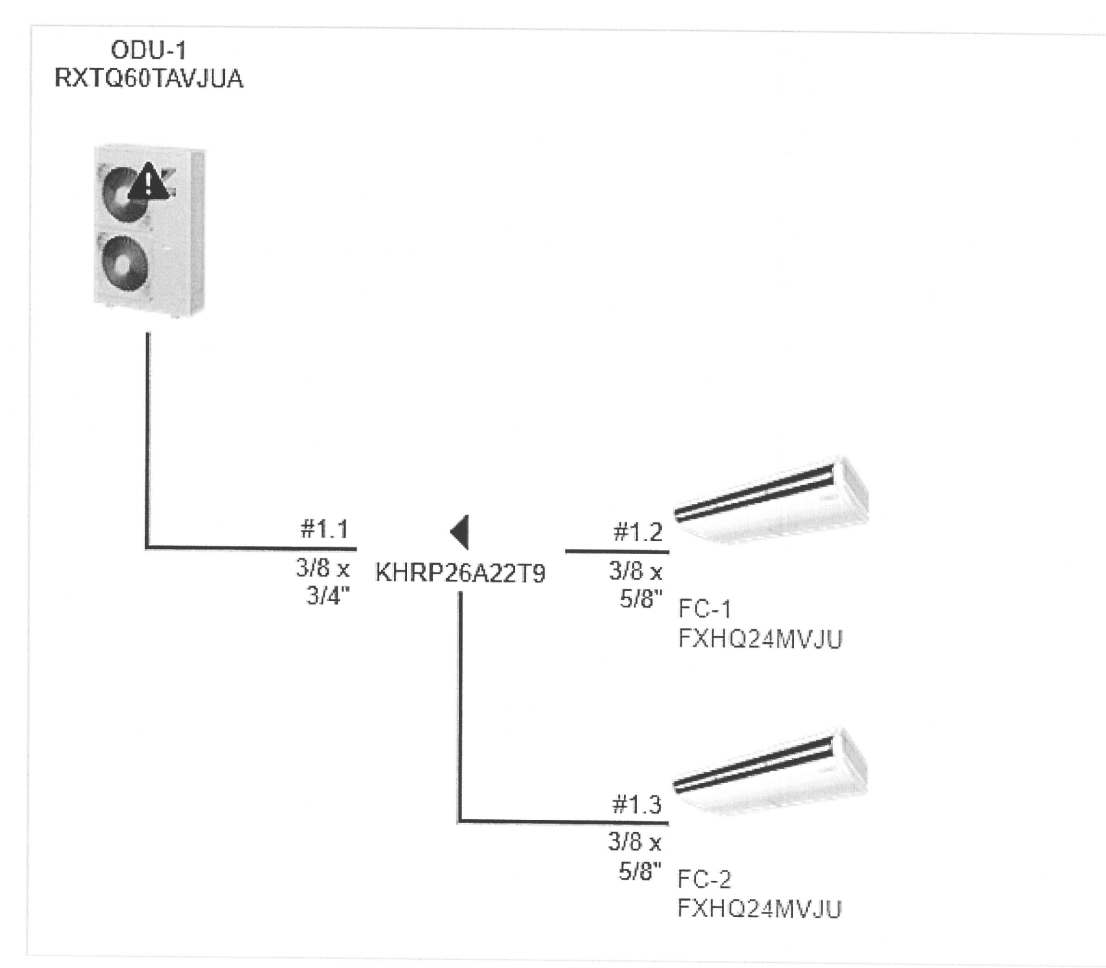
**B**  
**M2.1**



**OUTDOOR UNIT MOUNTING DETAIL**

SCALE: NONE

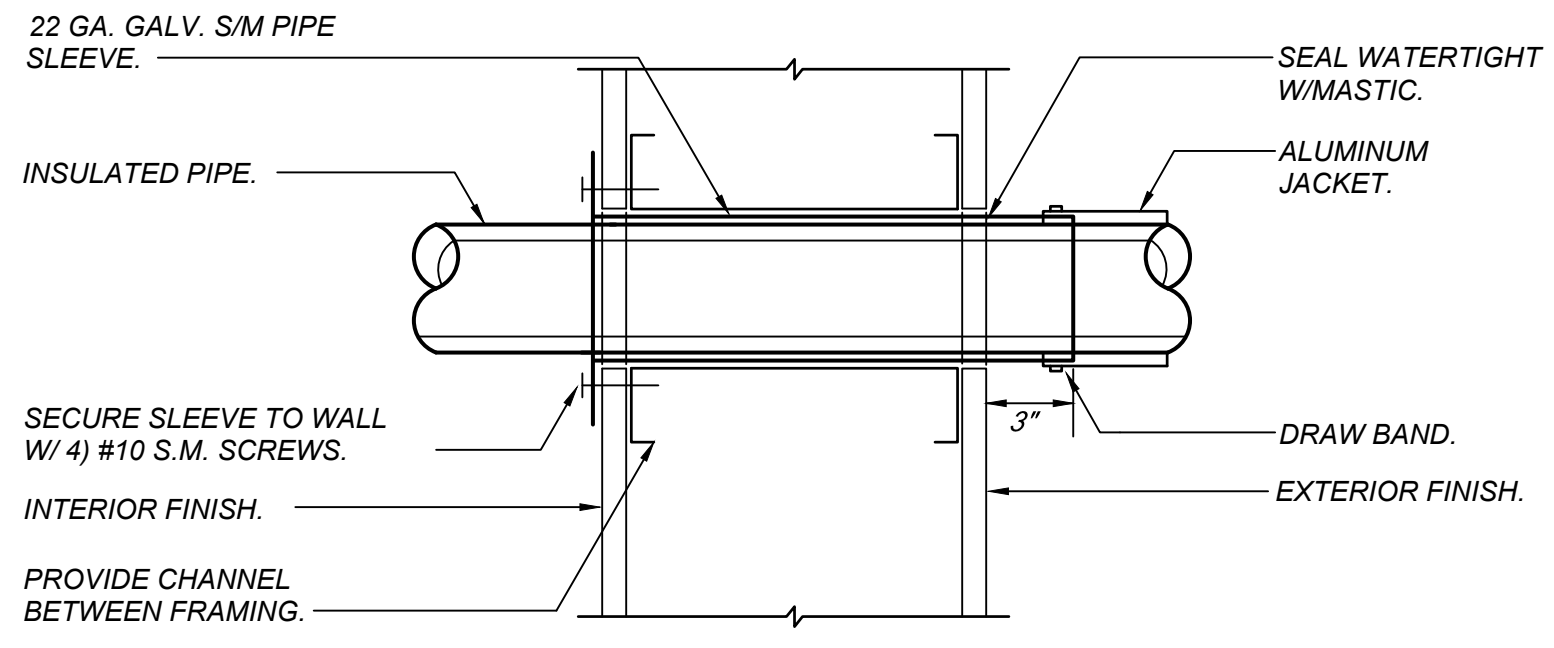
**C**  
**M2.1**



**ODU AND FC PIPING DIAGRAM**

SCALE: NONE

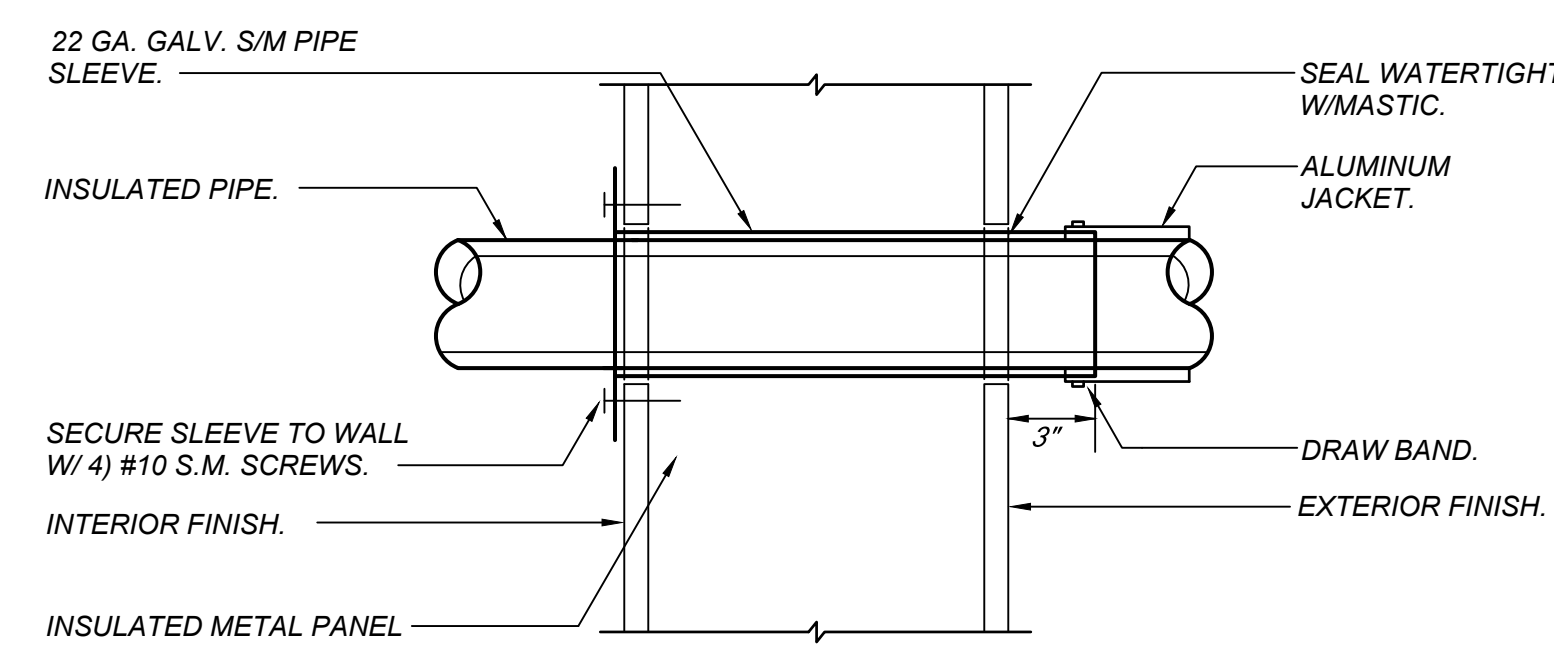
**K**  
**M2.1**



**PIPE THRU EXTERIOR WALL DETAIL**

SCALE: NONE

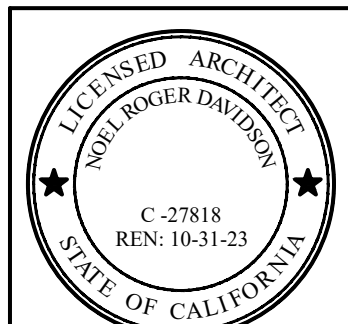
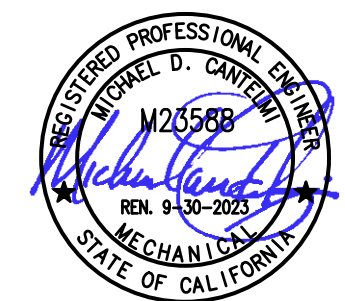
**F**  
**M2.1**



**PIPE THRU EXTERIOR WALL DETAIL**

SCALE: NONE

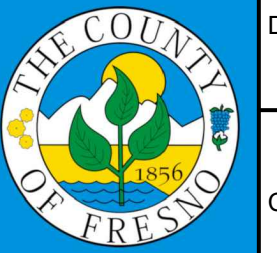
**G**  
**M2.1**



**Project:**  
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 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04, -05, and -06  
 ISSUE DATE: 02.14.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: M2.1 - DATA ROOM DETAILS

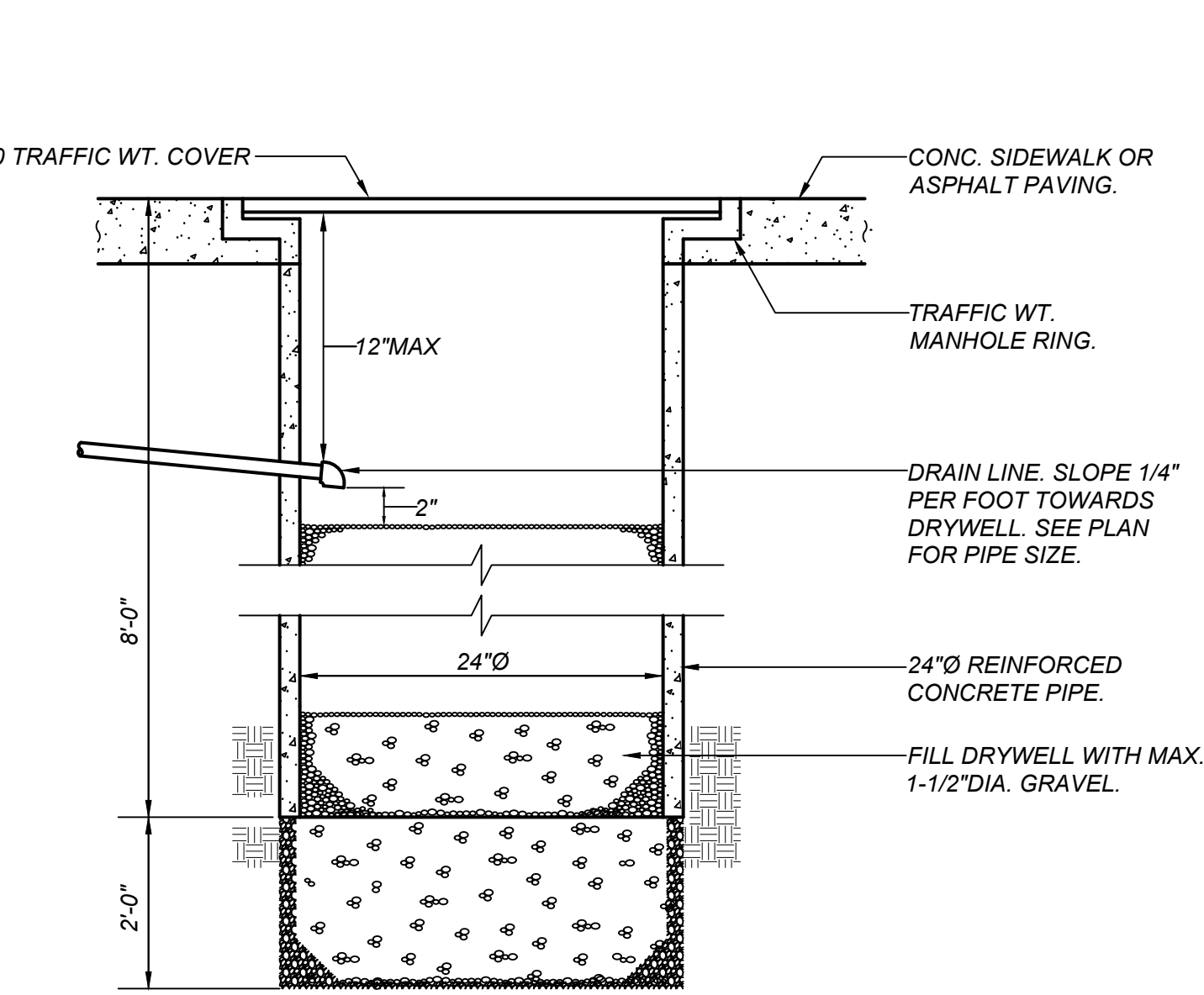
**Sheet Content:**  
 MECHANICAL DETAILS

Fresno County Department of Public Works and Planning  
 Capital Projects  
 2220 Tulare Street, 8th Floor  
 Fresno, California 93721



**Sheet No.**  
**M2.1**

14 February 2022 5:21 PM F:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\4-Mech\DATA ROOM\M2.1 - DATA ROOM DETAILS.dwg ezequil

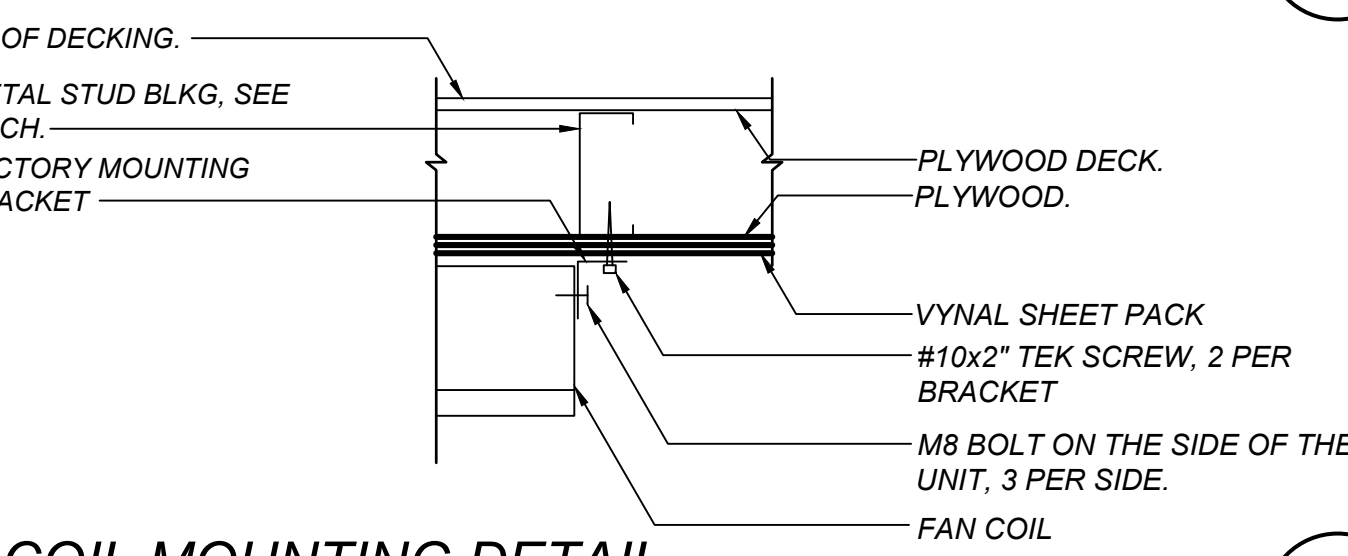


**DRYWELL DETAIL**  
SCALE: NONE  
M2.2

DUCT SIZE WxD <sup>1</sup> (IN.)	VERTICAL LEGS ANGLES (IN.)	HORIZONTAL ANGLES (IN.)	DIAGONAL/LONG BRACE <sup>2</sup> ANGLES (IN.)	WELD SIZE (IN.)	MAX. WT. PER FT. <sup>3</sup> (LB.)
30x30	2x2x 3/16	2x2x 3/16	2x2x16ga	1/8	17
42x42	2x2x 3/16	2x2x 3/16	2x2x16ga	1/8	29
54x54	2x2x 3/16	2 1/2 x 2 1/2 x 1/4	2x2x16ga	3/16	46
60x60	2x2x 3/16	2 1/2 x 2 1/2 x 1/4	2x2x16ga	1/4	54
84x84	2 1/2 x 2 1/2 x 1/4	4x3x 1/4	3x3x16ga	1/4	103
96x96	2 1/2 x 2 1/2 x 1/4	4x3x 1/4	3x3x16ga	1/4	129
54x28	2x2x 3/16	2x2x 3/16	2x2x16ga	1/8	34
60x30	2x2x 3/16	2 1/2 x 2 1/2 x 1/4	2x2x16ga	3/16	39
84x42	2x2x 3/16	2 1/2 x 2 1/2 x 1/4	3x3x16ga	3/16	74
96x48	2 1/2 x 2 1/2 x 1/4	3x3x 1/4	3x3x16ga	1/4	91
108x54	2 1/2 x 2 1/2 x 1/4	4x3x 1/4	4x4x14ga	1/4	110
120x60	2 1/2 x 2 1/2 x 1/4	5x3x 3/8	4x4x14ga	1/4	121

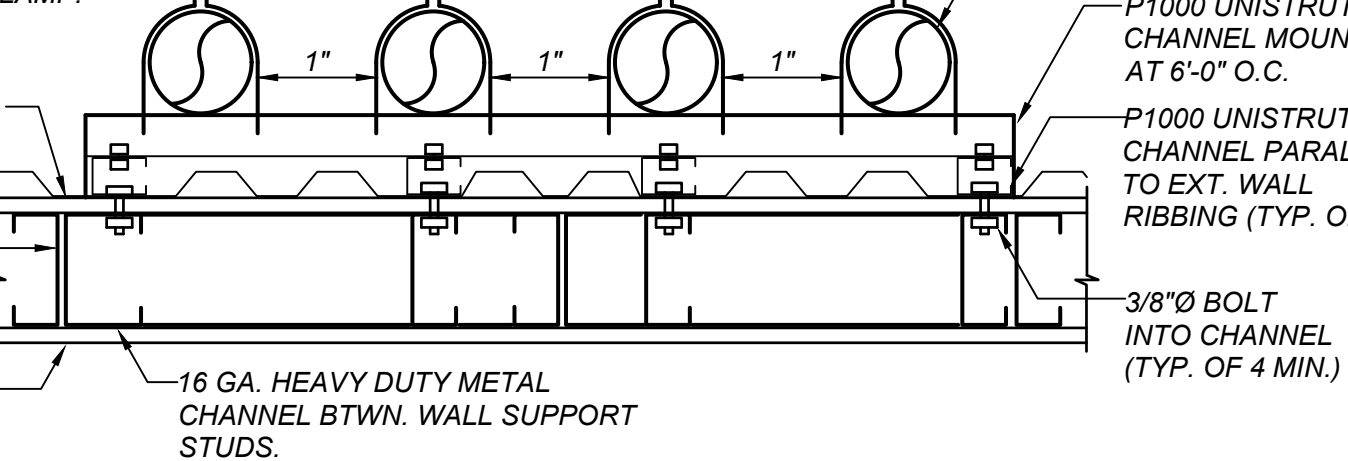
**NOTES:**  
THE DUCTS' MAXIMUM DIMENSIONS WILL GOVERN WHAT BRACING IS REQUIRED.  
1. EXAMPLE: A 72x30 IN. DUCT WILL BE BRACED LIKE AN 84x42 IN. DUCT.  
2. PROVIDE TRANSVERSE AT 30 FT. AND LONGITUDINAL BRACING AT 60 FT. MAXIMUM WEIGHT OF DUCT OR COMBINATIONS OF DUCTS IS PER LINEAR FOOT.  
3. FOR DUCT WEIGHING MORE THAN THE MAXIMUM WEIGHT PER FOOT, USE THE NEXT HIGHER DUCT SIZE.

**ROOF DUCT SUPPORT TABLE**  
SCALE: NONE  
MD080  
M2.2

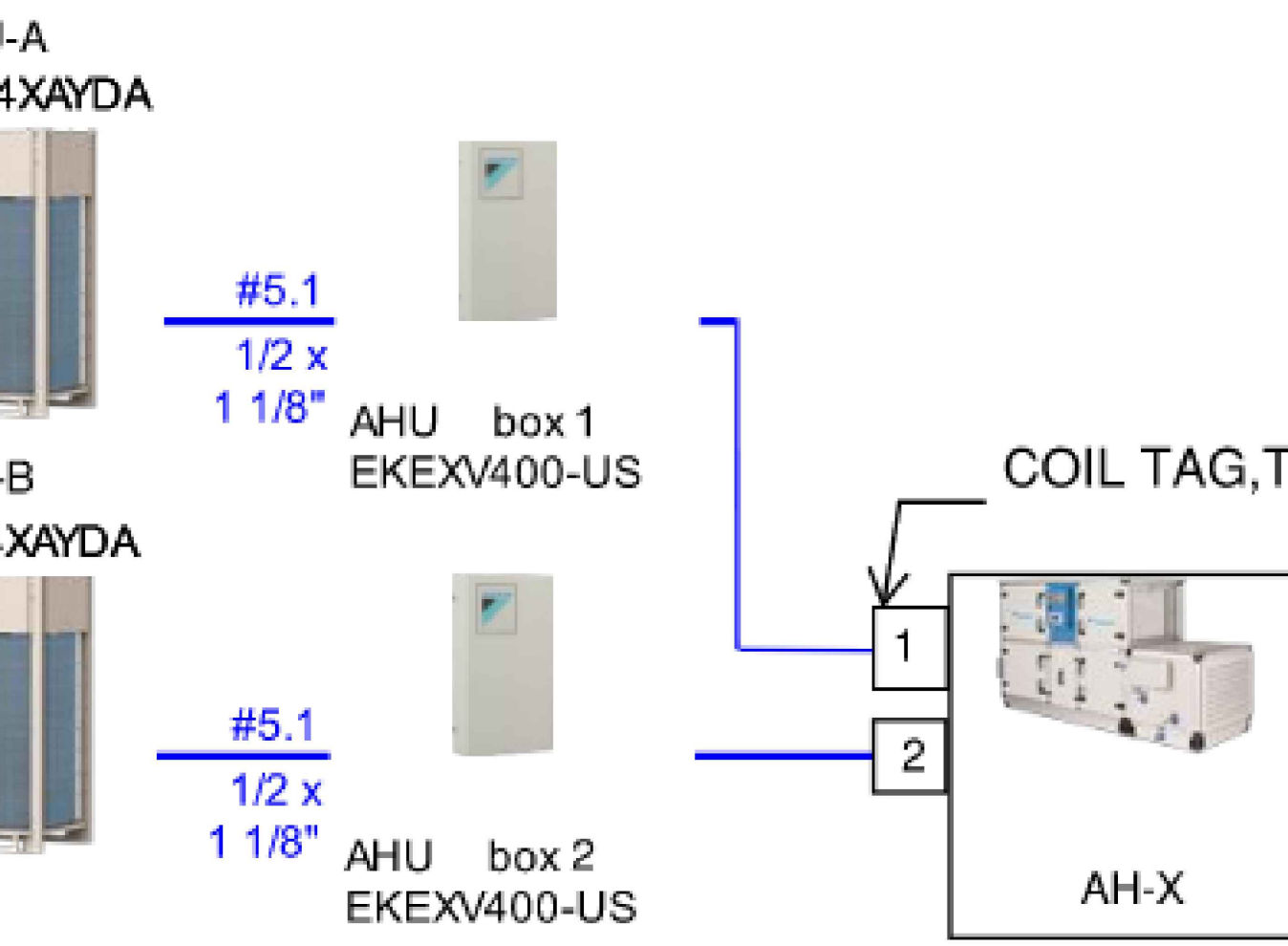


**FAN COIL MOUNTING DETAIL**  
SCALE: NONE  
MD080  
M2.2

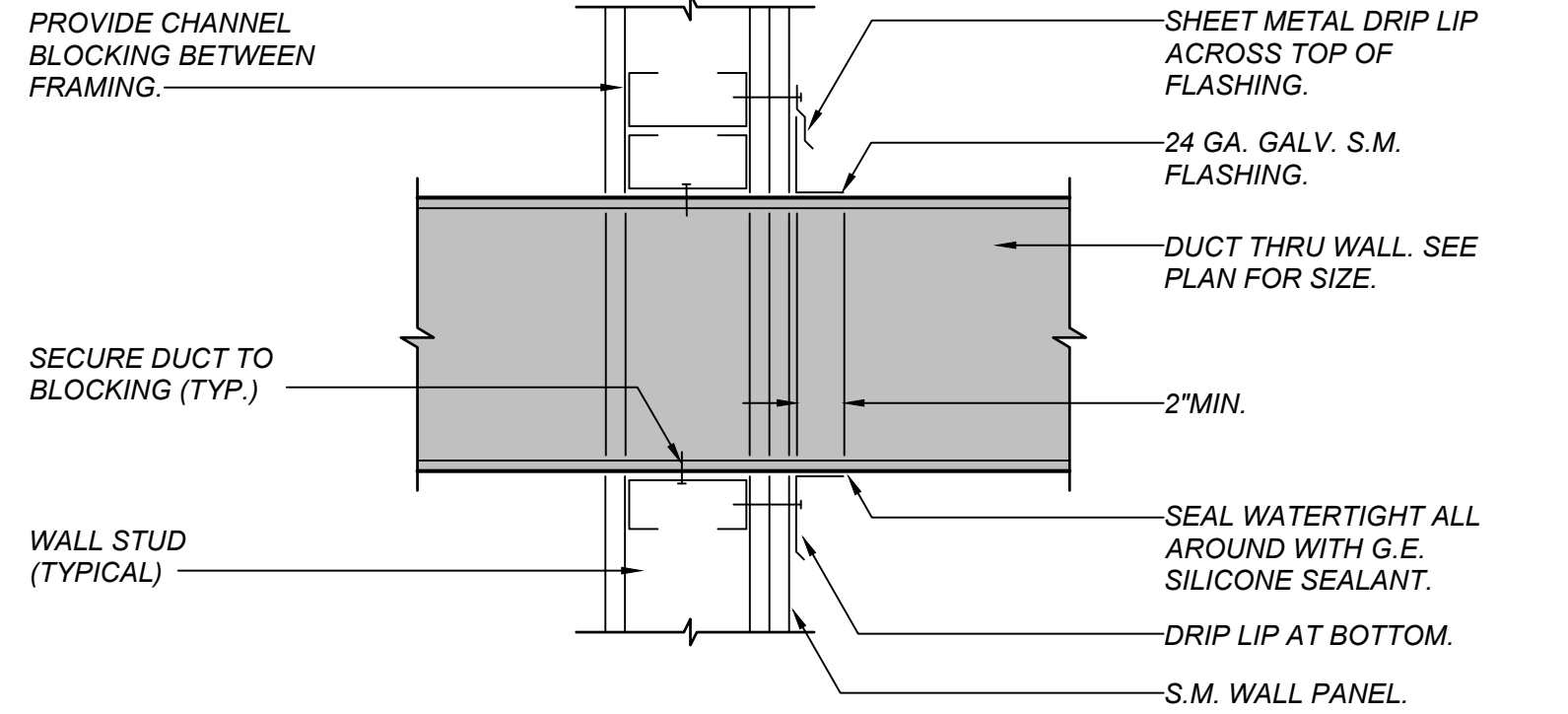
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1. 4\"/>



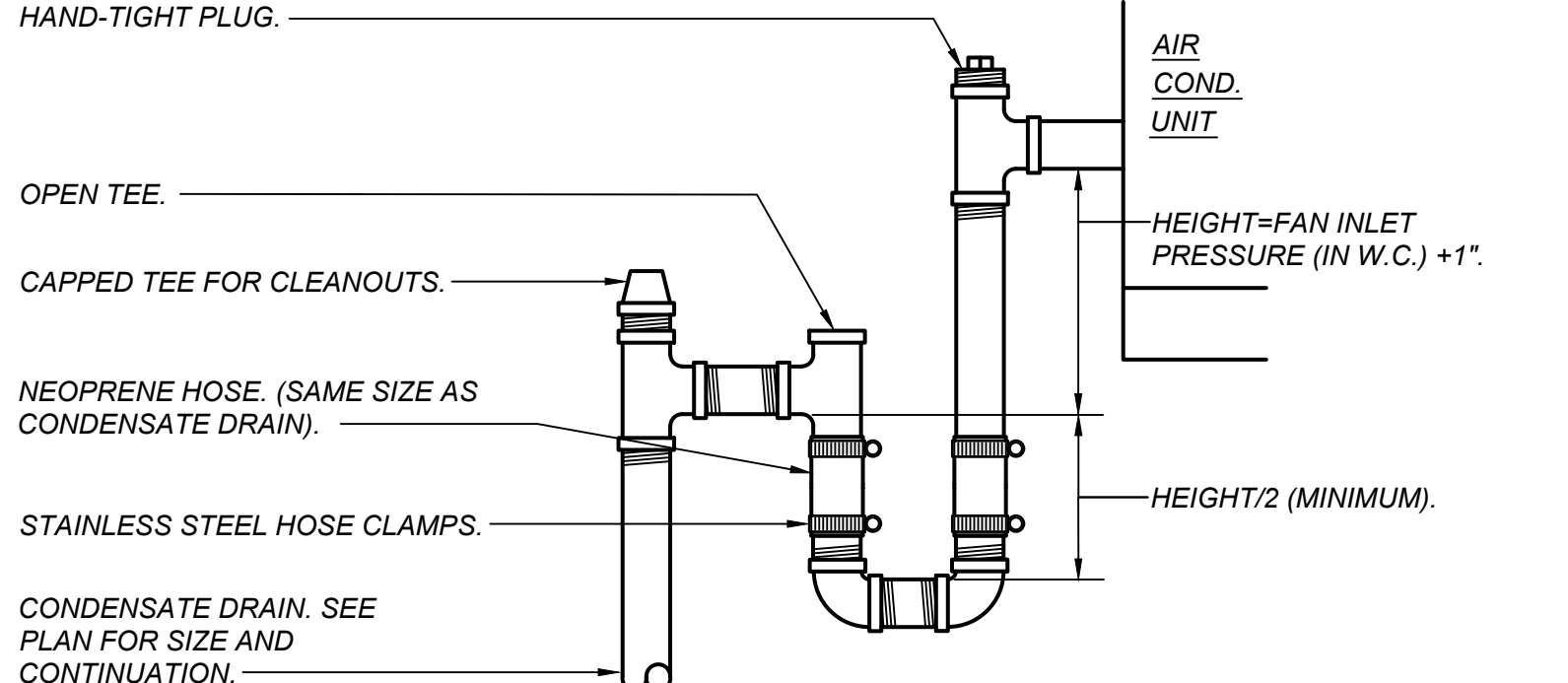
**VERT. PIPE SUPPORT ON WALL DETAIL**  
SCALE: NONE  
MP083  
M2.2



**ODU AND AH PIPING DIAGRAM**  
SCALE: NONE  
MD085  
M2.2

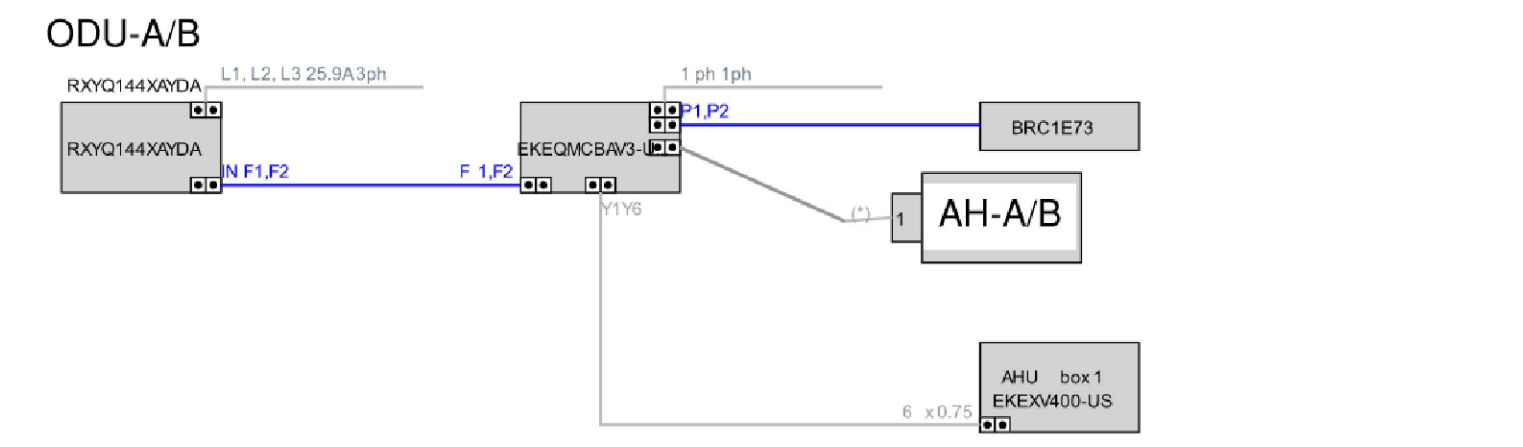


**DUCT THRU METAL STUD WALL DETAIL**  
SCALE: NONE  
MD085  
M2.2



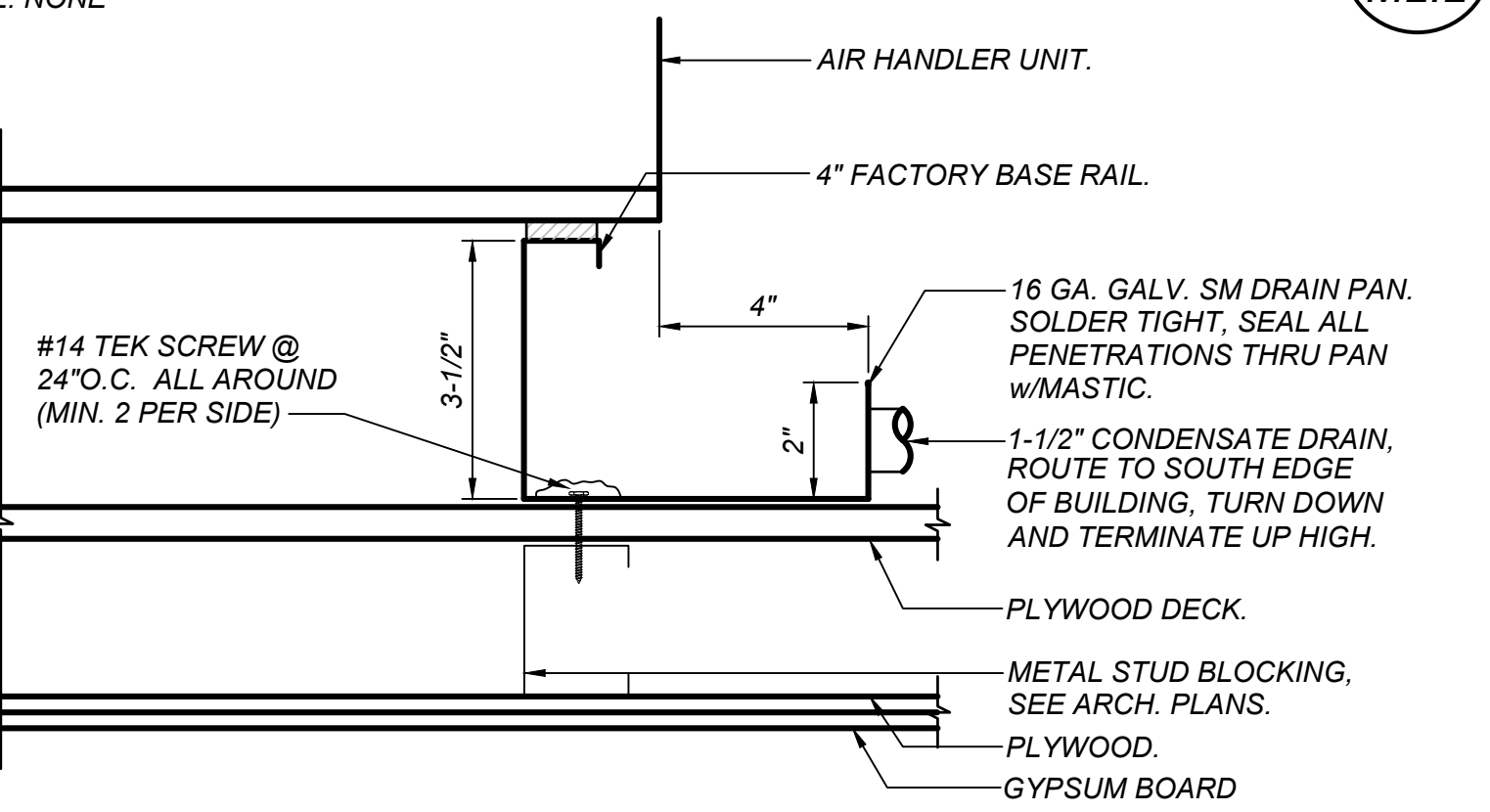
**CONDENSATE DRAIN CONNECTION DETAIL**  
SCALE: NONE  
M2.2

**NOT USED**  
SCALE: NONE  
P114  
M2.2

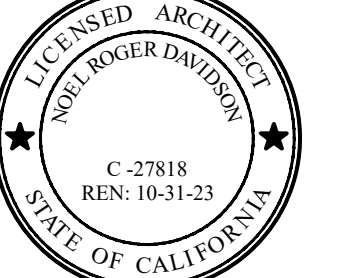
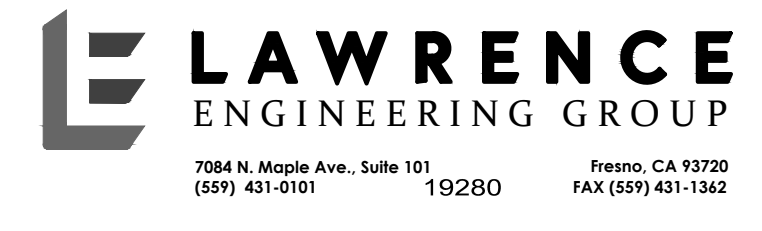
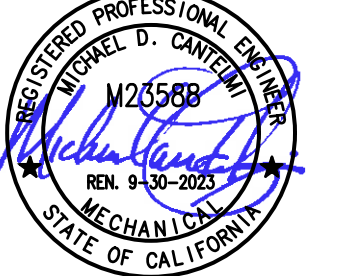


**Remarks**  
P1P2 = AWG 18-2 is required - however always refer to local code for further information.  
F1F2 IN/OUT = AWG 18-2 is required - however always refer to local code for further information.

**ODU AND AH WIRING DIAGRAM**  
SCALE: NONE  
A  
M2.2



**AIR HANDLING UNIT ON METAL CURB**  
SCALE: NONE  
B  
M2.2



**Project:**  
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FILE NAME: M2.2 - DATA ROOM DETS

**Sheet Content:**  
MECHANICAL DETAILS



**Sheet No.**  
**M2.2**

**FAN COIL SCHEDULE**

DESIGNATION	FC-1	FC-2	
<b>BLOWER</b>			
SUPPLY AIR FLOW (CFM)	688	688	
EXT. SP (IN. WC)	0.10	0.10	
MIN. O.S.A. (CFM)	100	100	
VOLTS/PHASE	208/1	208/1	
MCA / MAX. FUSE (AMPS)	1.8 / 15	1.8 / 15	
<b>COOLING COIL</b>			
SENSIBLE (MBH)	18.3	18.3	
TOTAL (MBH)	24	24	
EADB/EAWB (F)	75/64	75/64	
BRANCH SIZE (IN.)	3/4	3/4	
REFRIGERANT	R-134A	R-134A	
<b>FILTERS</b>			
QUANTITY/SIZE	2) 20x20x2	2) 20x20x2	
TYPE	DISPOSABLE	DISPOSABLE	
FINAL PD (IN WC)	0.3	0.3	
<b>MANUFACTURER</b>			
TYPE	UNDER CEILING	UNDER CEILING	
MODEL NUMBER	FXHQ24MVJU	FXHQ24MVJU	
LOCATION	IT WORKROOM	IT WORKROOM	
OPER. WT (LBS)	90	90	
ACCESSORIES	1	1	

1. PROVIDE WITH FACTORY FILTER CABINET, CONDENSATE LIFT PUMP W/ OVERFLOW SWITCH AND REFINET PIPING NETWORK. HARDWIRED WALL TEMPERATURE CONTROLLER, FACTORY MOUNTING BRACKET.  
2. SEE DETAIL HM2.2 AND KM2.1 FOR MOUNT AND PIPING DETAILS.

**DATA CENTER AIR HANDLING UNIT SCHEDULE**

DESIGNATION	AH-1	AH-2	AH-3	AH-4
<b>SUPPLY FAN</b>				
SUPPLY AIR FLOW (CFM)	3,750	3,750	3,750	3,750
EXT. SP (IN. WC)	0.80	0.80	0.80	0.80
MIN. O.S.A. (CFM)	375	375	375	375
FANS (QTY)	1	1	1	1
FAN POWER (HP) EA.	5	5	5	5
VOLTS/PHASE	460/3	460/3	460/3	460/3
FAN TYPE/CLASS	FC/1	FC/1	FC/1	FC/1
<b>COOLING COIL #1</b>				
SENSIBLE (MBH)	114.2	114.2	114.2	114.2
TOTAL (MBH)	178.6	178.6	178.6	178.6
COIL SIZE (FT.)	14.70	14.70	14.70	14.70
AIR PD (IN. WC)	0.25	0.25	0.25	0.25
EADB/EAWB (F)	80/62	80/62	80/62	80/62
REFRIGERANT	R-410A	R-410A	R-410A	R-410A
SST (F)	43	43	43	43
LIQUID LINE SIZE (QTY/IN.)	2) 7/8"	2) 7/8"	2) 7/8"	2) 7/8"
SUCTION LINE SIZE (QTY/IN.)	2) 1.125"	2) 1.125"	2) 1.125"	2) 1.125"
ODU CONNECTION	1	3	5	7
<b>COOLING COIL #2</b>				
SENSIBLE (MBH)	114.2	114.2	114.2	114.2
TOTAL (MBH)	178.6	178.6	178.6	178.6
COIL SIZE (FT.)	14.70	14.70	14.70	14.70
AIR PD (IN. WC)	0.25	0.25	0.25	0.25
EADB/EAWB (F)	80/62	80/62	80/62	80/62
REFRIGERANT	R-410A	R-410A	R-410A	R-410A
SST (F)	43	43	43	43
LIQUID LINE SIZE (QTY/IN.)	2) 7/8"	2) 7/8"	2) 7/8"	2) 7/8"
SUCTION LINE SIZE (QTY/IN.)	2) 1.125"	2) 1.125"	2) 1.125"	2) 1.125"
ODU CONNECTION	2	4	6	8
<b>FILTER</b>				
QUANTITY/SIZE	3) 20"x25"x2"	3) 20"x25"x2"	3) 20"x25"x2"	3) 20"x25"x2"
TYPE	MERV 13	MERV 13	MERV 13	MERV 13
FINAL PD (IN WC)	0.4	0.4	0.4	0.4
<b>MANUFACTURER</b>				
TYPE	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL NUMBER	DESTINY DX	DESTINY DX	DESTINY DX	DESTINY DX
LOCATION	LAH010A	LAH010A	LAH010A	LAH010A
OPER. WT (LBS)	IT ROOM	IT ROOM	IT ROOM	IT ROOM
ACCESSORIES	843	843	843	843
	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4

1. PROVIDE WITH UV-C GERMICIDAL LIGHT WITH DOOR KILL SWITCH, INTERNAL SPRING ISOLATION WITH 2" DEFLECTION, FILTER MIXING BOX WITH FULLY MODULATING ECONOMIZER, FACTORY METAL MOUNTING FRAME, CONDENSATE PUMP.  
2. FACTORY CONDENSATE OVERFLOW KILL SWITCH IN DRAIN PAN TO BAS SYSTEM  
3. PROVIDE (1) EEV KIT PER COIL, (2) PER UNIT. MOUNT EEV KIT ENCLOSURE ON UNIT AND PROVIDE SEPARATE POWER TO EACH KIT, 120V/1PH.  
4. DUAL DX COILS. SEE ODU SCHEDULE FOR COIL PIPING

**GRILLE SCHEDULE**

MARK	DUTY	DESCRIPTION
A	CEILING RETURN OR EXHAUST	TITUS CORE 50F (TYPE 1) ALUMINUM EGG CRATE REGISTER WITH 1/2"x1/2" GRID FOR SURFACE MOUNTING WITH NO. 26 WHITE FINISH.
B	RELIEF DAMPER	RUSKIN CBD6 ADJ. COUNTER BALANCED BACKDRAFT DAMPER, HEAVY DUTY EXTRUDED ALUMINUM, BIRD INSECT SCREEN, FRONT FLANGE.
C	CEILING RETURN OR EXHAUST	TITUS CORE 50F (TYPE 3) ALUMINUM EGG CRATE REGISTER WITH 1/2"x1/2" GRID FOR STD. LAY-IN CEILING WITH NO. 26 WHITE FINISH.

**OUTDOOR UNIT SCHEDULE**

DESIGNATION	ODU 1	ODU 2	ODU 3	ODU 4	ODU 5	ODU 6	ODU 7	ODU 8	ODU 9
COOLING CAPACITY (MBH)	139.8	139.8	139.8	139.8	139.8	139.8	139.8	139.8	56.0
VOLTS/PHASE	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	208/1
FLA									23.2
MCA / MOCP	25.9/35.0	25.9/35.0	25.9/35.0	25.9/35.0	25.9/35.0	25.9/35.0	25.9/35.0	25.9/35.0	29.1/35
IEER / EER (AT ARI)	22.6/11.5	22.6/11.5	22.6/11.5	22.6/11.5	22.6/11.5	22.6/11.5	22.6/11.5	22.6/11.5	/ 9.2
AMBIENT (°F)	105	105	105	105	105	105	105	105	105
REFRIG. LINE SIZE									
LIQUID (IN. OD)	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/8"
SUCTION (IN. OD)	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	3/4"
REFRIG. TYPE	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
TYPE	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP
MODEL NUMBER	RXYQ144XAYDA	RXYQ144XAYDA	RXYQ144XAYDA	RXYQ144XAYDA	RXYQ144XAYDA	RXYQ144XAYDA	RXYQ144XAYDA	RXYQ144XAYDA	RXTQ60TAVJUA
SERVICE	AH-1	AH-1	AH-2	AH-2	AH-3	AH-3	AH-4	AH-4	FC-1/FC-2
COIL TAG	1	2	1	2	1	2	1	2	-
OPER. WT (LBS)	750	750	750	750	750	750	750	750	250
ACCESSORIES	1, 3, 5	1, 4, 5	1, 3, 5	1, 4, 5	1, 3, 5	1, 4, 5	1, 3, 5	1, 4, 5	2

1. PROVIDE WITH SOLID STATE CONTROLS AND EMS INTERFACE (BACNET PROTOCOL).  
POWER MONITOR  
2. PROVIDE WITH REFINET JOINTS AND EMS INTERFACE (BACNET PROTOCOL)  
3. GROUP A: ODU-1, ODU-3, ODU-5, ODU-7 TO RUN IN UNISON, AND PIPED TO FIRST AIR HANDLER DX COIL.  
4. GROUP B: ODU-2, ODU-4, ODU-6, ODU-8 TO RUN IN UNISON, AND PIPED TO SECOND AIR HANDLER DX COIL.  
5. FOR WIRING AND PIPING DIAGRAM SEE DETAILS AM2.2 AND KM2.2

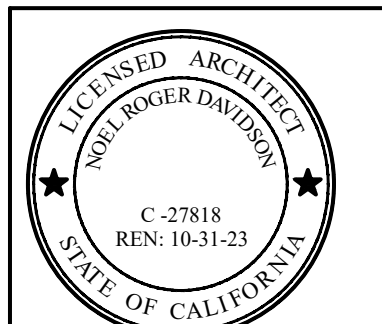
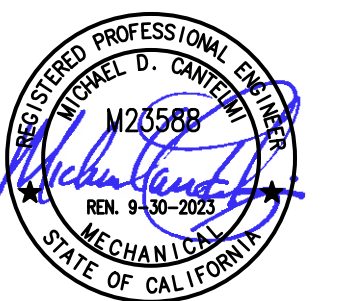
**COMPUTER ROOM UNIT SCHEDULE**

DESIGNATION	CRAC 1	CRAC 2
VOLTS/PHASE	208 / 3	208 / 3
FLA	34.2	34.2
MAX FUSE SIZE	60	60
CFM	2,730	2,730
ESP (IN WC)	0.1	0.1
MIN OSA	40	40
DRIVE	DIRECT	DIRECT
<b>FAN SECTION</b>		
SENSIBLE (MBH)	55.0	55.0
TOTAL (MBH)	65.5	65.5
EADB/EAWB (F)	75.5 / 63.0	75.5 / 63.0
REFRIGERANT	R-410A	R-410A
CONDENSER TAG	C-1	C-2
<b>HUMIDIFIER (LBS/HR)</b>		
QUANTITY/SIZE	(2) 20" x 20" x 4"	(2) 20" x 20" x 4"
TYPE	CA-FIL	CA-FIL
PD (IN WC)	0.35	0.35
EFFICIENCY (MERV)	8	8
<b>MANUFACTURER</b>		
TYPE	LIEBERT	LIEBERT
MODEL NUMBER	UPBLAST	UPBLAST
LOCATION	PX018UA	PX018UA
OPER. WT (LBS)	700	700
ACCESSORIES	SHERIFFS SUBST. 2 DATA RACK ROOM	SHERIFFS SUBST. 2 DATA RACK ROOM
	1, 2, 3	1, 2, 3

1. EC FAN, CONDENSATE PUMP, FACTORY FLOAT SWITCH IN COND. PAN TO SHUT OFF UNIT ON OVERFLOW CONDITION, FACTORY FILTER BOX.  
2. UPBLAST PLENUM W/ 4-WAY DISCHARGE GRILLE.  
3. FOR MOUNTING AND CONTROL DIAGRAMS, SEE DETAIL DM2.1 AND EM2.1.

**CONDENSER SCHEDULE**

DESIGNATION	CR 1	CR 2
NAMEPLATE AMPS	2.9	2.9
VOLTS / PHASE	208 / 3	208 / 3
COOLING CAP (MBH)	65.5	65.5
AMBIENT (°F)	105	105
SCOP AT ARI	2.3	2.3
REFRIGERANT	R-410A	R-410A
MANUFACTURER	LIEBERT	LIEBERT
TYPE	AIR COOLED	AIR COOLED
MODEL NUMBER	MCM040E1	MCM040E1
SERVICE	SHERIFFS SUBST. 2 DATA RACKS ROOM	SHERIFFS SUBST. 2 DATA RACKS ROOM
OPER. WT. (LBS)	390	390
ACCESSORIES	SEE SPECS	SEE SPECS



**Project:**  
Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
1129 N. Armstrong Ave., Fresno, CA 93727  
APN: 310-133-04, -05, and -06  
ISSUE DATE: 02.14.2022  
PROJECT NO: T80293 / 19003.03  
FILE NAME: M3.0 - SCHEDS

**Sheet Content:**  
MECHANICAL SCHEDULES



**Sheet No.**  
**M3.0**

Mechanical Systems Mechanical Systems Mechanical Systems Mechanical Systems

Table with 8 columns: System Name, FC 1-2, Economizer, N/A Special OA Filtration, Economizer, Design per 140.4(a) and (m), System Fan Type, Constant Volume

Table with 9 columns: System Name, System Zoning, Conditioned Floor Area, Thermostats, Shut-Off Controls, Isolation Zone, Demand Response, Supply Air Temp. Reset, Window Interlocks

Table with 9 columns: System Name, System Zoning, Conditioned Floor Area, Thermostats, Shut-Off Controls, Isolation Zone, Demand Response, Supply Air Temp. Reset, Window Interlocks

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003

Mechanical Systems Mechanical Systems Mechanical Systems Mechanical Systems

Table with 11 columns: System Name, Equipment Category, Equipment Type, Smallest Size Available, Heating Output, Cooling Output, Load Calculations

Table with 9 columns: System Name, System Zoning, Conditioned Floor Area, Thermostats, Shut-Off Controls, Isolation Zone, Demand Response, Supply Air Temp. Reset, Window Interlocks

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Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003

Mechanical Systems Mechanical Systems Mechanical Systems Mechanical Systems

Table with 2 columns: Item, Value

Table with 4 columns: System Name, System Zoning, Conditioned Floor Area, Thermostats

Table with 4 columns: System Name, System Zoning, Conditioned Floor Area, Thermostats

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003

Mechanical Systems Mechanical Systems Mechanical Systems Mechanical Systems

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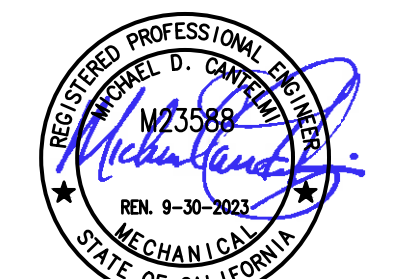
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Mechanical Systems Mechanical Systems Mechanical Systems Mechanical Systems

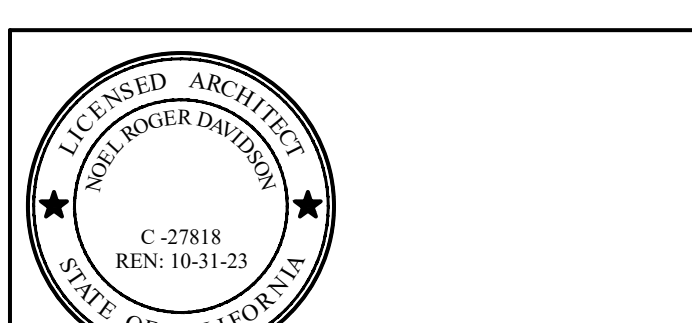
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Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003



LAWRENCE ENGINEERING GROUP 7084 N. Maple Ave., Suite 101 Fresno, CA 93720



Project: Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2

Sheet Content: TITLE 24 DOCUMENTS

Fresno County Department of Public Works and Planning Capital Projects 2220 Tulare Street, 8th Floor Fresno, California 93721

Sheet No. M4.0

Drawn by: Plot date: 02.14.2022

STATE OF CALIFORNIA  
**Process Systems**  
 NRC-PRC-E (revised 01/21)  
 CALIFORNIA ENERGY COMMISSION  
 NRC-PRC-E

**CERTIFICATE OF COMPLIANCE**

Table Instructions: Include any process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6, or prescriptive requirements in §140.9. This compliance document is used for newly constructed, addition and alteration projects.

Project Name: Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm. Revisions Report Page: Page 4 of 5  
 Project Address: 2220 Tulare Street, 8th Floor Fresno, CA 93721 Date Prepared: 2022-01-19

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-03-F Compressed Air Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-03-F Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-03-F Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-04-F Refrigerated Warehouses - Evaporator Fan Motor Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-04-F Refrigerated Warehouses - Evaporative Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-06-Refrigerated Warehouses - Air Cooled Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-16-Refrigerated Warehouses - Adiabatic Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-07 Refrigerated Warehouses - Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-08-F Refrigerated Warehouses - Electric Resistance Underlab Heating System	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-12-F Elevator Lighting & Ventilation Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-13-F Escalators & Moving Walkways Speed Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-14-F Lab Exhaust Ventilation Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-15-F Fume Hood Automatic Sash Closure Systems	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/91624/2019standards> January 2021

STATE OF CALIFORNIA  
**Process Systems**  
 NRC-PRC-E (revised 01/21)  
 CALIFORNIA ENERGY COMMISSION  
 NRC-PRC-E

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Project Name: Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm. Revisions Report Page: Page 1 of 5  
 Project Address: 2220 Tulare Street, 8th Floor Fresno, CA 93721 Date Prepared: 2022-01-19

**A. GENERAL INFORMATION**

01 Project Location (city) Fresno 04 Total Conditioned Floor Area 235  
 02 Climate Zone 13 05 Total Unconditioned Floor Area 803  
 03 Occupancy Types Within Project: 06 # of Stories (habitable above grade) 1

Office  Retail  Non-refrigerated Warehouse  
 Hotel/Motel  School  Healthcare Facility  
 High-Rise Residential  Relocatable Class Bldg  Other (Write In):

**B. PROJECT SCOPE**

Table Instructions: Include any process systems listed below within the scope of the permit application that are demonstrating compliance with mandatory requirements in §120.6 or prescriptive requirements in §140.9.

My project consists of (check all that apply):

01  Refrigerated Spaces < 3,000 ft<sup>2</sup> Total (no Title 24, Part 6 requirements)  Elevator Lighting & Ventilation Controls (mandatory §120.6(f))  
 Refrigerated Spaces ≥ 3,000 ft<sup>2</sup> Total (mandatory §120.6(a))  Escalator & Moving Walkway Speed Controls (mandatory §120.6(a))  
 Food Stores > 8,000 ft<sup>2</sup> cfa (mandatory §120.6(b))  Computer Rooms > 20W/ft<sup>2</sup> Power Density (prescriptive §140.9(a))  
 Enclosed Parking Garage Exhaust ≥ 10,000 cfm (mandatory §120.6(c))  Commercial Kitchen Ventilation/Exhaust (prescriptive §140.9(b))  
 Newly Installed Process Boilers (mandatory §120.6(d))  Laboratory Exhaust/Factory Exhaust & Fume Hood (prescriptive §140.9(c))  
 Compressed Air Systems Combined HP > 25 (mandatory §120.6(e))  Laboratory Exhaust/Factory Exhaust & Fume Hood (prescriptive §140.9(c))

**FOOTNOTES:** These building features can comply using the performance method. If using the performance method for these features, compliance should be demonstrated on the NRC-PRC-E compliance document.

**C. COMPLIANCE RESULTS**

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, for guidance.

01	02	03	04	05	06	07	08	09	10
Refrigerated Warehouse/Space §120.6(a)	Commercial Refrigeration §120.6(b)	Parking Garage Exhaust §120.6(c)	Process Boilers §120.6(d)	Compressed Air Systems §120.6(e)	Elevators §120.6(f)	Escalators & Moving Walkways §120.6(g)	Computer Rooms §140.9(a)	Commercial Kitchens §140.9(b)	Laboratory Exhaust §140.9(c)
							Yes		
<b>COMPLIES</b>									

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/91624/2019standards> January 2021

STATE OF CALIFORNIA  
**Process Systems**  
 NRC-PRC-E (revised 01/21)  
 CALIFORNIA ENERGY COMMISSION  
 NRC-PRC-E

**CERTIFICATE OF COMPLIANCE**

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Project Name: Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm. Revisions Report Page: Page 2 of 5  
 Project Address: 2220 Tulare Street, 8th Floor Fresno, CA 93721 Date Prepared: 2022-01-19

**D. EXCEPTIONAL CONDITIONS**

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form. No exceptional conditions apply to this project.

**E. ADDITIONAL REMARKS**

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

**F. REFRIGERATED WAREHOUSE/SPACES**

This Section Does Not Apply

**G. COMMERCIAL REFRIGERATION**

This Section Does Not Apply

**H. ENCLOSED PARKING GARAGE EXHAUST**

This Section Does Not Apply

**I. PROCESS BOILER**

This Section Does Not Apply

**J. COMPRESSED AIR SYSTEMS**

This Section Does Not Apply

**K. ELEVATOR LIGHTING AND VENTILATION**

This Section Does Not Apply

**L. ESCALATORS AND MOVING WALKWAYS SPEED CONTROLS**

This Section Does Not Apply

**M. COMPUTER ROOM SYSTEM SUMMARY**

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/91624/2019standards> January 2021

STATE OF CALIFORNIA  
**Process Systems**  
 NRC-PRC-E (revised 01/21)  
 CALIFORNIA ENERGY COMMISSION  
 NRC-PRC-E

**CERTIFICATE OF COMPLIANCE**

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Project Name: Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm. Revisions Report Page: Page 3 of 5  
 Project Address: 2220 Tulare Street, 8th Floor Fresno, CA 93721 Date Prepared: 2022-01-19

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

I, I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Erik Ruiz Documentation Author Signature: *Erik Ruiz*  
 Company: Lawrence Engineering Group Signature Date: 1/19/2022  
 Address: 7084 N. Maple CEA/HERS Certification Identification (if applicable):  
 City/State/Zip: Fresno/CA/93720 Phone: 559-431-0101

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Mike Carrilmi Responsible Designer Signature: *Mike Carrilmi*  
 Company: Lawrence Engineering Group Date Signed: 1/19/2022  
 Address: 7084 N. Maple License: M23588  
 City/State/Zip: Fresno/CA/93720 Phone: 559-431-0101

[Add Responsible Person](#) [Remove Last](#)

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/91624/2019standards> January 2021

STATE OF CALIFORNIA  
**Process Systems**  
 NRC-PRC-E (revised 01/21)  
 CALIFORNIA ENERGY COMMISSION  
 NRC-PRC-E

**CERTIFICATE OF COMPLIANCE**

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Project Name: Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm. Revisions Report Page: Page 3 of 5  
 Project Address: 2220 Tulare Street, 8th Floor Fresno, CA 93721 Date Prepared: 2022-01-19

Table Instructions: Complete the following table for each individual conditioned computer room with power density greater than 20 W/ft<sup>2</sup> to show compliance with computer room requirements found in §140.9(a).

01	02	03	04	05	06	07	08	09
Computer Room Name/ID	Economizer Compliance Method §140.9(a)(1)	Reheat §140.9(a)(2)	Humidification §140.9(a)(3)	Sensible Cooling Total Fan System Capacity (kBtu/h)	Fan Power §140.9(a)(4) Power per Design (watts)	Maximum Fan System Power Allowed (watts)	Fan Controls §140.9(a)(5)	Containment §140.9(a)(6)
IT Data Rm.	N/A. A computer room being served by a fan system (not economizer) meeting the requirements of Exception 4 to §140.9(a)(1).	Zone controls designed to prevent reheat	None Provided	503.28	8,948.4	13,588.56	Variable airflow controls/ devices provided per §140.9(a)(5)	Air barrier provided per §140.9(a)(6)

**FOOTNOTE:** Refers to net sensible cooling capacity at design conditions.

**N. COMMERCIAL KITCHEN EXHAUST AND VENTILATION**

This Section Does Not Apply

**O. LABORATORY AND FACTORY EXHAUST AND FUME HOODS**

This Section Does Not Apply

**P. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

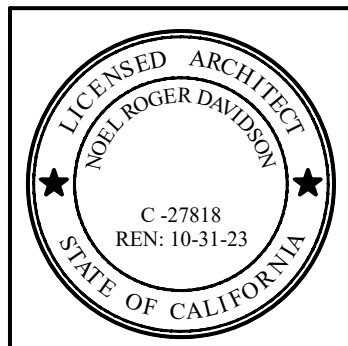
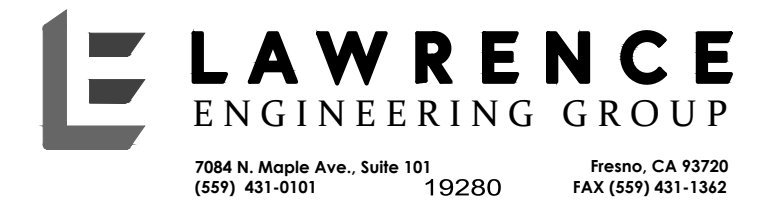
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at [https://www2.energy.ca.gov/91624/2019standards/2019\\_compliance\\_documents/Nonresidential\\_Documents/NRC/A/](https://www2.energy.ca.gov/91624/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/A/).

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRC-PRC-01-E Covered Process	<input type="checkbox"/>	<input type="checkbox"/>

**Q. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at [https://www2.energy.ca.gov/91624/2019standards/2019\\_compliance\\_documents/Nonresidential\\_Documents/NRC/A/](https://www2.energy.ca.gov/91624/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/A/).

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/91624/2019standards> January 2021



**Project:**  
 Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04, -05, and -06  
 ISSUE DATE: 02.14.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: M4.1 - TITLE 24 DOCUMENTS

**Sheet Content:**  
 TITLE 24 DOCUMENTS



**Sheet No.**  
**M4.1**

## Electrical General Notes

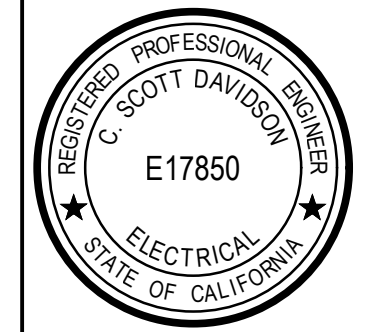
1. ALL WORK SHALL MEET THE LATEST ADOPTED ADDITIONS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24 AND ALL OTHER APPLICABLE REGULATIONS, WHICH INCLUDE:  

CALIFORNIA BUILDING CODE	2019
CALIFORNIA ELECTRICAL CODE	2019
NON RESIDENTIAL CEC ENERGY STANDARDS	2019
2. NOTHING IN THE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
3. IT IS THE INTENTION OF THESE PLANS AND SPECIFICATIONS TO COVER EVERYTHING REQUIRED TO PROVIDE FOR COMPLETE AND OPERATIVE SYSTEMS. THE CONTRACTOR IS TO FURNISH LABOR, MATERIAL, TRANSPORTATION, EQUIPMENT, MISCELLANEOUS SERVICES, ETC. REQUIRED TO ACCOMPLISH THIS RESULT. ANYTHING WHICH MAY BE REASONABLY CONSTRUED AS A NECESSARY PART OF THE INSTALLATION IS TO BE INCLUDED, WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED.
4. THE CONTRACTOR SHALL EXAMINE THE SITE AND EXISTING CONDITIONS AND MAKE ALLOWANCES IN THE BID FOR ANY CONDITIONS NOT SHOWN ON THE ELECTRICAL DOCUMENTS.
5. THE PLANS AND SPECIFICATIONS ARE INTENDED TO BE USED AS CONSTRUCTION GUIDELINES AND ARE NOT THE TOTAL INSTRUMENT OF CONTRACT DOCUMENTS. IT IS NOT THE INTENTION OF ANY CONSTRUCTION PLANS TO DIVIDE WORK AMONG DIFFERENT TRADES. VERIFY THE SCOPE OF WORK WITH THE ARCHITECT AND THE GENERAL CONTRACTOR.
6. ELECTRICAL ROUTING IS DIAGRAMMATIC ONLY. ACTUAL ROUTING & PHYSICAL CONDITIONS MAY VARY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL ROUTING, CONNECTIONS, & PROVISION OF ALL APPURTENANCES NECESSARY FOR A COMPLETE & OPERATING SYSTEM.
7. ELECTRICAL EQUIPMENT SHALL HAVE AN APPROVED TESTING LABORATORY LABEL ATTACHED (UL, CSA ETC.) PER CEC 110.2.
8. ELECTRICAL EQUIPMENT SHALL HAVE A SHORT CIRCUIT CURRENT RATING CAPABLE OF WITHSTANDING THE AVAILABLE SHORT CIRCUIT CURRENT PER CEC 110.9. WHERE SERIES COMBINATION RATINGS ARE USED FOR NEW PANELS, PROVIDE A CAUTIONARY LABEL TO THE SERIES RATED DEVICE COVER STATING "CAUTION - SERIES RATED SYSTEM AMPACITY AVAILABLE" AND IDENTIFY THE COMPONENTS, PER CEC 110.3, 110.22(C), 240.86, AND THE UL RECOGNITION DIRECTORY.
9. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 36" DEEP WORK CLEARANCES IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 120/208V 3Ø 4W PER CEC 110.26.
10. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 42" DEEP WORK CLEARANCES IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 277/480V 3Ø 4W PER CEC 110.26.
11. PROVIDE A PLACARD ON EACH PANELBOARD INDICATING THE LOCATION AND IDENTIFICATION OF THE FEEDER SERVING THE PANEL PER CEC 408.4(B).
12. PROVIDE ILLUMINATED EMERGENCY POWER PER 2016 CFC, SECTION 1006.3. EMERGENCY EGRESS LIGHTING SHALL PROVIDE A MINIMUM LUMINANCE OF 1 FOOTCANDLE AT THE WALKING SURFACE FOR A MINIMUM OF 90 MINUTES.
13. FIRE ALARM EQUIPMENT SHALL BE SERVED BY DEDICATED FIRE ALARM BRANCH CIRCUITS PER NFPA 72 10.6.5.1.2. THE CIRCUIT NUMBER SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM EQUIPMENT PER NFPA 10.6.5.2.1. THE CIRCUIT BREAKER SHALL BE EQUIPPED WITH RED HANDLE AND LOCK-ON DEVICE, AND PERMANENTLY IDENTIFIED AS "FIRE ALARM CIRCUIT" PER NFPA 72 10.6.5.2.2, 10.6.5.2.3, 10.6.5.2.4, AND 10.6.5.4.
14. WIRING FOR 120/208V AND 277/480V SYSTEMS SHALL BE MIN. #12 AWG THHN/THWN-2 COPPER.
15. 120V AND 277V BRANCH CIRCUITS SHALL HAVE DEDICATED NEUTRALS. SHARING NEUTRALS IS NOT ACCEPTABLE.
16. FEEDERS SIZE #4 AND LARGER SHALL BE MEGGER TESTED. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
17. ALL UNDERGROUND CONDUITS SHALL HAVE MINIMUM 24" COVER. INSTALL GALVANIZED RIGID STEEL RISERS & ELBOWS WHERE RISERS OCCUR. WRAP GRS BELOW GRADE OR PROVIDE PVC COATED GRS. EXPOSED CONDUIT SHALL BE GRS TO 8'-0", THEN EMT ABOVE AS APPROPRIATE. UNDER NO CIRCUMSTANCE SHALL PVC CONDUIT BE INSTALLED ABOVE GRADE.
18. CONDUIT INSTALLED ABOVE GRADE SHALL BE MIN. 3/4" TRADE SIZE. CONDUIT BELOW GRADE SHALL BE MIN. 1" TRADE SIZE.
19. PROVIDE (4) 1" CONDUIT STUBS FROM EACH NEW ELECTRICAL PANEL TO ACCESSIBLE ATTIC SPACE FOR FUTURE USE.
20. COLORS/FINISHES/MATERIALS FOR ALL ELECTRICAL DEVICES, PLATES, LIGHT FIXTURES, ETC. SHALL BE CHOSEN BY THE ARCHITECT.

21. PROVIDE PERMANENT LOCK-OPEN DEVICES ON CIRCUIT BREAKERS SERVING ELECTRIC WATER HEATERS TO MEET THE REQUIREMENTS OF CEC 422.31.
22. BEFORE AN OCCUPANCY PERMIT IS GRANTED FOR A NEWLY CONSTRUCTED BUILDING OR AREA, OR NEW LIGHTING SERVING A BUILDING, AREA OR SITE IS OPERATED FOR NORMAL USE, ALL INDOOR AND OUTDOOR LIGHTING CONTROLS SERVING THE BUILDING, AREA OR SITE SHALL BE CERTIFIED AS MEETING THE "ACCEPTANCE REQUIREMENTS" FOR CODE COMPLIANCE IN ACCORDANCE WITH SECTION 130.4. A "CERTIFICATE OF ACCEPTANCE" SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY UNDER SECTION 10-103(a) OF PART 1 THRU 7(c).
23. AT TIME OF "FINAL INSPECTION", ALL CODE REQUIRED SIGN CONTROLS WILL BE REQUIRED TO HAVE BEEN INSTALLED. REFERENCE SECTION 130.4 OF THE 2016 CALIFORNIA ENERGY CODE.
24. THE CALIFORNIA STATE LICENSE BOARD (CSLB) "ZERO TOLERANCE POLICY" IN EFFECT FOR NON-COMPLIANT LABOR CODE SECTIONS 3099 AND 2099.2, SECTIONS 209.0 AND THE AB 931, AS OF JANUARY 2006, ENFORCEMENT OF LEGAL ACTION WILL BE ISSUED TO ANY C-10 CONTRACTOR WHO WILLFULLY EMPLOYS AN "UNCERTIFIED ELECTRICIAN" TO PERFORM ELECTRICAL WORK IN THE STATE OF CALIFORNIA.
25. THE GENERAL CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INTERFACES BETWEEN THE FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR, AND ANY OTHER PERTINENT TRADES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXTINGUISHING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.).
26. WHEN A FIRE ALARM SYSTEM IS PRESENT AND THE TOTAL COMBINED CFM FOR ALL HVAC UNITS IN A FIRE COMPARTMENT IS IN EXCESS OF 2000, DETECTION OF SMOKE IN ANY ONE OF THE DUCT DETECTORS SHALL SHUT OFF THE POWER SOURCES TO ALL THE UNITS PER FRESNO FIRE POLICY 407.4.
27. PROVIDE START-UP, TESTING, ADJUSTMENT, AND REPORTING OF BUILDING LIGHTING SYSTEM PER CGBSC 5.410.4.
28. ARC-FLASH WARNING SIGNS SHALL BE PROVIDED PER CEC SECTION 110.16.
29. FAULT CURRENT SHALL BE CALCULATED AND POSTED PRIOR TO FINAL INSPECTION PER CEC 110.24.

## Electrical Symbols

SYMBOL	DESCRIPTION	NOTES
	DEVICES TO BE REMOVED	
	EXISTING CONDUIT/WIRING TO BE DEMOLISHED	
	EXISTING DEVICES	
	EXISTING CONDUIT/WIRING	
	WIRING IN CONDUIT, BELOW GRADE	3/4" CONDUIT MIN.
	WIRING IN CONDUIT, IN WALL OR CEILING	3/4" CONDUIT MIN.
	LOW VOLTAGE WIRING IN ATTIC SPACE	TYPE PER EQUIPMENT MANUFACTURER
	CONDUIT RISER	3/4" CONDUIT MIN.
	FLEXIBLE CONDUIT	3/4" CONDUIT MIN.
	CONDUIT STUB AND CAP	3/4" CONDUIT MIN.
	CROSS HATCHES INDICATE NUMBER OF #12 AWG CONDUCTORS IN CONDUIT, WHEN MORE THAN TWO. WIRE SIZE INDICATED ON PLANS WHEN OTHER #12 AWG. PROVIDE GROUND PER CEC 250. PROVIDE DEDICATED NEUTRAL FOR EACH CIRCUIT.	3/4" CONDUIT MIN.
	CURVED CROSS HATCHES INDICATE #14 AWG PURPLE & GRAY CONDUCTORS FOR DIMMING CONTROL.	3/4" CONDUIT MIN.
	A-15 HOME RUN (TO PANEL "A", CIRCUIT "15")	3/4" CONDUIT MIN.
	(E) "EXISTING"	
	U.O.N. "UNLESS OTHERWISE NOTED"	
	WP "WEATHERPROOF" / NEMA 3R	
	GFI "GROUND FAULT INTERRUPTER"	
LIGHTING		
	POLE WITH SINGLE AREA LUMINAIRE	
	POLE WITH DOUBLE AREA LUMINAIRES	
	POLE WITH POST TOP AREA LUMINAIRE	
	WELL LIGHT, DIRECTIONAL BEAM	
POWER		
	SWITCHBOARD	REFER TO POWER SINGLE LINE DIAGRAM
	POWER PANEL	REFER TO PANEL SCHEDULE
	JUNCTION BOX	4-11/16" SQUARE BOX & COVER PLATE MIN.
	DISCONNECT SWITCH, FUSIBLE	REFER TO MECH. PLANS & SPECS.
	MOTOR CONTROLLER/DISCONNECT SWITCH	REFER TO MECH. PLANS & SPECS.
	MOTOR	REFER TO MECH. PLANS & SPECS.
	EXHAUST FAN, CEILING MOUNTED	REFER TO MECH. PLANS & SPECS.
	SINGLE CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED
	DUPLEX CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED
	DUPLEX GFI CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED
	QUADPLEX CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED
	DUPLEX GFI CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #X7899-W
	QUADPLEX GFI CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #X7899-W
	WEATHERPROOF, GFI OUTLET	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #X7899-W
	DUPLEX CONVENIENCE OUTLET	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #TDR20-S1W CODE COMPLIANT MARKING REQUIRED
	QUADPLEX CONVENIENCE OUTLET, CONTROLLED	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #TDR20-W AND LEVITON #TDR20-S2W CODE COMPLIANT MARKING REQUIRED
	HEAVY DUTY WP MINI POWER CENTER WITH 10kVA XFMR AND (6) 20A 1-POLE BREAKERS	PROVIDE (4) STEEL BOLLARDS TO PROTECT PEDESTAL
	HEAVY DUTY WP OUTLET PEDESTAL WITH (2) GFI DUPLEX OUTLETS AT 180° WITH WP WHILE-IN USE COVERS	PROVIDE (2) STEEL BOLLARDS TO PROTECT PEDESTAL
	SPECIAL EQUIPMENT OUTLET	VERIFY REQ'TS W/ EQUIPMENT VENDOR
	2G FLOOR BOX WITH POWER FEED COVER	MAKE CONNECTION TO MODULAR FURNITURE SYSTEM
	12" CU GROUND BUS BAR	WITH #6 GREEN GROUND WIRE TO G.E.C.
	FIRE/SMOKE DAMPER	PROVIDE 120V F.A. CIRCUIT TO DAMPER VIA F.A. RELAY.



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 2220 Tulare Street, Eighth Floor  
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 FILE NAME: 19074 - 7\_Elec\_New Bid Ph 2

**Sheet Content:**  
 ELECTRICAL SYMBOLS AND GENERAL NOTES

Fresno County Department of Public Works and Planning  
 Capital Projects

2220 Tulare Street, 8th Floor  
 Fresno, California 93721

**Sheet No.**  
**E1.0**

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PANELBOARD AND FEEDER NOT A PART OF THIS BID

### PANEL "1LM" SCHEDULE

120/208V 3Φ 4W INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER		VA	Φ	VA	BREAKER		DESCRIPTION	CKT. NO.
		AMPS	POLE(S)				AMPS	POLE(S)		
1	INDOOR UNITS - IDU-1, 10	20	1	324	A	168	15	2	BRANCH SELECTOR UNIT BSU-2	2
3	INDOOR UNITS - IDU-11, 4, 10, 2	20	1	672	B	168	--	--		4
5	INDOOR UNITS - IDU-6, 3, 3, 3, 1, 3	20	1	564	C	168	15	2	BRANCH SELECTOR UNIT BSU-2	6
7	INDOOR UNITS - IDU-10, 2, 10, 9, 8	20	1	912	A	168	--	--		8
9	INDOOR UNITS - IDU-4, 1, 1, 1, 1, 1, 1, 1, 3	20	1	672	B	156	15	2	BRANCH SELECTOR UNIT BSU-1	10
11	INDOOR UNITS - IDU-2, 6, 10, 10	20	1	732	C	156	--	--		12
13	INDOOR UNITS - IDU-3, 1, 1	20	1	228	A				SPACE ONLY	14
15	INDOOR UNITS - IDU-10, 6, 3, 6, 1	20	1	720	B				SPACE ONLY	16
17	INDOOR UNITS - IDU-6, 6, 9, 9, 1	20	1	744	C				SPACE ONLY	18
19	CRAC UNIT - CRAC-1	60	3	4104	A				SPACE ONLY	20
21	-----	--	--	4104	B				SPACE ONLY	22
23	-----	--	--	4104	C				SPACE ONLY	24
25	CRAC UNIT - CRAC-2	60	3	4104	A				SPACE ONLY	26
27	-----	--	--	4104	B				SPACE ONLY	28
29	-----	--	--	4104	C				SPACE ONLY	30
31	SPARE	20	1		A		20	1	SPARE	32
33	SPARE	20	1		B		20	1	SPARE	34
35	SPARE	20	1		C	500	15	1	CU-3 CONTROL PANEL	36
37	SPACE ONLY				A	500	15	1	CU-2 CONTROL PANEL	38
39	SPACE ONLY				B	500	15	1	CU-1 CONTROL PANEL	40
41	SPACE ONLY				C	500	15	1	EMS PANEL	42

LOAD SUMMARY: Φ A 10508 VA      BUSING: 100 AMPS  
Φ B 11096 VA      MAIN: 100 AMPS  
Φ C 11572 VA      AIC RATING: 35KAIC  
CONNECTED LOAD: 33.2 KVA      MFGR: SQUARE D  
MAX CURRENT: 96 A

PANELBOARD AND FEEDER NOT A PART OF THIS BID

### PANEL "3LA" SCHEDULE

120/208V 3Φ 4W INDOOR / SURFACE

CKT. NO.	DESCRIPTION	BREAKER		VA	Φ	VA	BREAKER		DESCRIPTION	CKT. NO.
		AMPS	POLE(S)				AMPS	POLE(S)		
1	FUT. GENERATOR BATTERY CHARGER	20	1	500	A	600	15	1	NORTH GATE OPERATOR	2
3	FUT. GENERATOR JACKET HEATER	20	2	2000	B	600	15	1	SOUTH GATE OPERATOR	4
5	-----	--	--	2000	C	600	15	1	EAST GATE OPERATOR	6
7	SPARE	20	1		A				SPACE ONLY	8
9	SPARE	20	1		B				SPACE ONLY	10
11	OUTLETS - IT OPERATOR ROOM	20	1	720	C				SPACE ONLY	12
13	OUTLETS - IT OPERATOR ROOM	20	1	720	A				SPACE ONLY	14
15	OUTLETS - IT DATA ROOM	20	1	720	B				SPACE ONLY	16
17	SPARE	20	1		C				SPACE ONLY	18
19	SPARE	20	1		A				SPACE ONLY	20
21	SPARE	20	1		B				SPACE ONLY	22
23	OUTLETS - MECHANICAL YARD	20	1	360	C				SPACE ONLY	24
25	OUTDOOR UNIT ODU-9	35	2	2415	A				SPACE ONLY	26
27	-----	--	--	2415	B				SPACE ONLY	28
29	INDOOR UNITS IDU-1, IDU-2	15	2	320	C				SPACE ONLY	30
31	-----	--	--	320	A				SPACE ONLY	32
33	SPACE ONLY				B				SPACE ONLY	34
35	SPACE ONLY				C				SPACE ONLY	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY: Φ A 4555 VA      BUSING: 400 AMPS  
Φ B 5735 VA      MAIN: LUGS ONLY  
Φ C 4000 VA      AIC RATING: 35KAIC  
CONNECTED LOAD: 14.3 KVA      MFGR: SQUARE D  
MAX CURRENT: 48 A

PANELBOARD AND FEEDER NOT A PART OF THIS BID

### PANEL "2HM" SCHEDULE

277/480V 3Φ 4W INDOOR / SURFACE

CKT. NO.	DESCRIPTION	BREAKER		VA	Φ	VA	BREAKER		DESCRIPTION	CKT. NO.
		AMPS	POLE(S)				AMPS	POLE(S)		
1	EXHAUST FAN EF-1	15	3	1330	A	2326	15	3	CEILING FANS - GARAGE	2
3	-----	--	--	1330	B	2326	--	--		4
5	-----	--	--	1330	C	2326	--	--		6
7	SPACE ONLY				A	1163	15	3	CEILING FANS - SECURE STORAGE	8
9	SPACE ONLY				B	1163	--	--		10
11	SPACE ONLY				C	1163	--	--		12
13	SPACE ONLY				A				SPACE ONLY	14
15	SPACE ONLY				B				SPACE ONLY	16
17	SPACE ONLY				C				SPACE ONLY	18
19	OUTDOOR UNIT ODU-1	35	3	6100	A	6100	35	3	OUTDOOR UNIT ODU-5	20
21	-----	--	--	6100	B	6100	--	--		22
23	-----	--	--	6100	C	6100	--	--		24
25	OUTDOOR UNIT ODU-2	35	3	6100	A	6100	35	3	OUTDOOR UNIT ODU-6	26
27	-----	--	--	6100	B	6100	--	--		28
29	-----	--	--	6100	C	6100	--	--		30
31	OUTDOOR UNIT ODU-3	35	3	6100	A	6100	35	3	OUTDOOR UNIT ODU-7	32
33	-----	--	--	6100	B	6100	--	--		34
35	-----	--	--	6100	C	6100	--	--		36
37	OUTDOOR UNIT ODU-4	35	3	6100	A	6100	35	3	OUTDOOR UNIT ODU-8	38
39	-----	--	--	6100	B	6100	--	--		40
41	-----	--	--	6100	C	6100	--	--		42
43	AIR HANDLER AH-1	15	3	2105	A	2105	15	3	AIR HANDLER AH-3	44
45	-----	--	--	2105	B	2105	--	--		46
47	-----	--	--	2105	C	2105	--	--		48
49	AIR HANDLER AH-2	15	3	2105	A	2105	15	3	AIR HANDLER AH-4	50
51	-----	--	--	2105	B	2105	--	--		52
53	-----	--	--	2105	C	2105	--	--		54

LOAD SUMMARY: Φ A 62039 VA      BUSING: 800 AMPS  
Φ B 62039 VA      MAIN: 800 AMPS  
Φ C 62039 VA      AIC RATING: 42KAIC  
CONNECTED LOAD: 186.1 KVA      MFGR: SQUARE D  
MAX CURRENT: 224 A

**Hardin-Davidson Engineering**  
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PANEL SCHEDULES

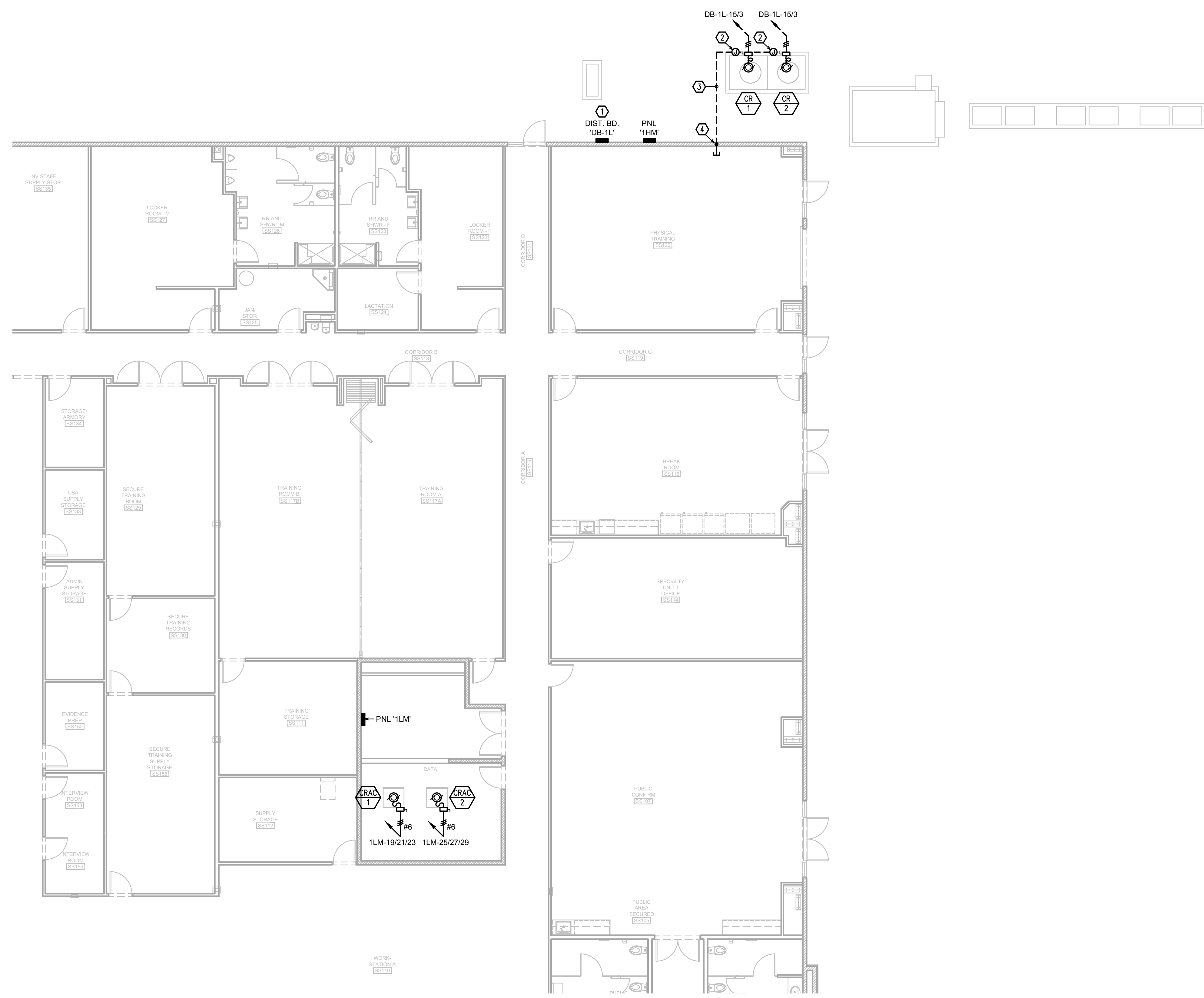
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Capital Projects

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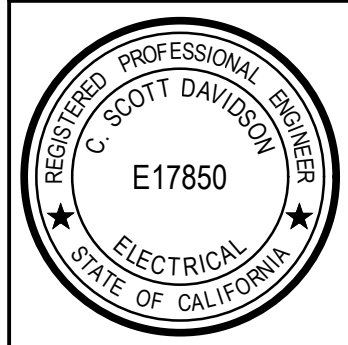
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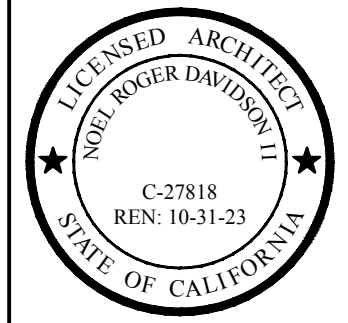


### Key Notes

1. PROVIDE (2) 15A 3-POLE CIRCUIT BREAKERS IN DB-1L FOR CONNECTION OF CONDENSING UNITS CR-1 AND CR-2.
2. WP JBOX FOR MECHANICAL CONTROLS.
3. 1" C. FOR MECHANICAL CONTROLS.
4. RISE CONDUIT INTO ACCESSIBLE ATTIC SPACE.



**Hardin-Davidson Engineering**  
 356 Polasky Ave., Suite 200  
 Clovis, CA 93612  
 559.323.4995 tel  
 www.hardin-davidson.com



**ARCHITECT:**  
 Noel Roger Davidson, A.I.A., Architect  
 California Licensed Architect No. C-27818  
 Ren: 10-31-22  
 Fresno County Department of Public Works and Planning  
 Development Services and Capital Projects Division  
 2220 Tulare Street, Eighth Floor  
 Fresno, California 93721  
 Office: (559) 600-4477  
 E-mail: ndavidson@fresnocountyca.gov

### Project:

Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04 -05, and -06  
 ISSUE DATE: 02.10.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19074 - 7\_Elec\_New Bid Ph 2

### Sheet Content:

SUBSTATION OFFICE  
 DATA ROOM  
 HVAC ELECTRICAL PLAN



2220 Tulare Street, 8th Floor  
 Fresno, California 93721

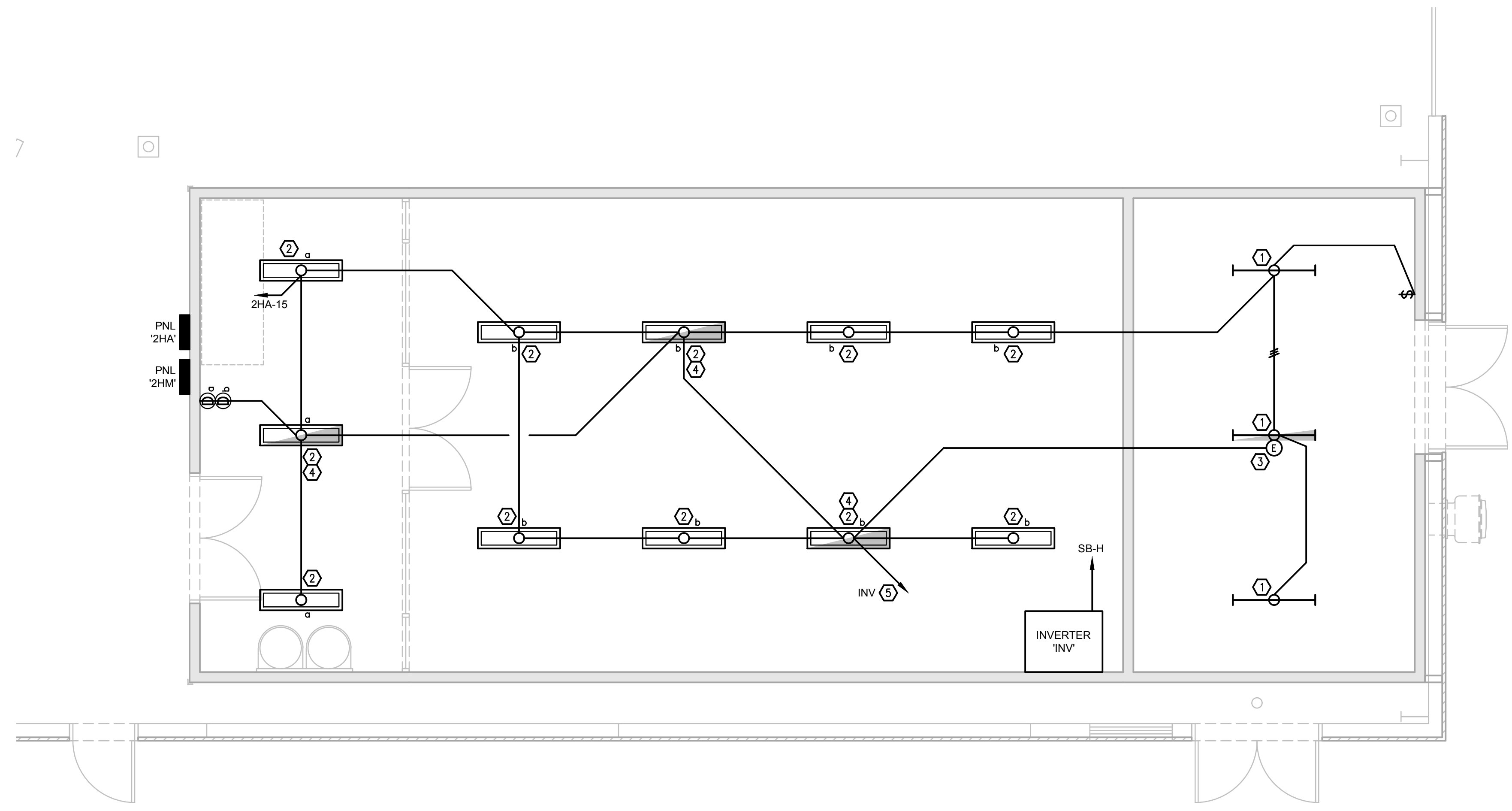
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# E2.0



Scale: 1/8" = 1'-0"

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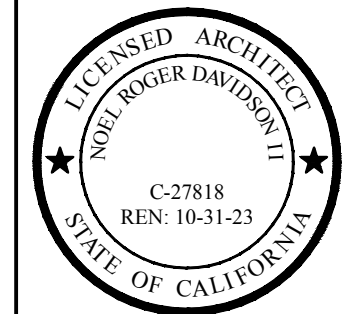


### Key Notes

1. LITHONIA #ZL1D-L48-SMR-5000LM-FST-MVOLT-40K-80CRI HANG FIXTURE FROM STRUCTURE WITH CHAIN KIT AND SET BOTTOM AT +8'-6" AFF. ON/OFF WIRING ONLY - NO OCCUPANCY SENSOR.
2. LITHONIA #WL4-40L-MVOLT-GZ10-LP840-NLTAIR2-RES7 LIGHT FIXTURE. SURFACE MOUNT TO GYP BOARD CEILING.
3. EMERGENCY FIXTURE: PROVIDE UL 924 RELAY AND MOUNT AT J-BOX. FIXTURE TO SWITCH OVER TO INVERTER CIRCUIT AND SWITCH ON UPON NORMAL POWER FAILURE.
4. EMERGENCY FIXTURE: PROVIDE INTEGRAL NLTAIR2 RIOEM TRANSFER DEVICE AT EMERGENCY LIGHT FIXTURE.
5. HOMERUN TO INVERTER "INV" NORMALLY-ON CIRCUIT BREAKER.



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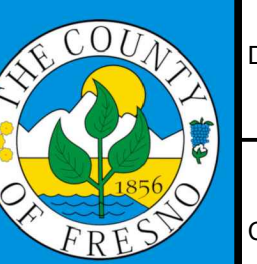
### Project:

Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04 -05 and -06  
 ISSUE DATE: 02.10.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19074 - 7\_Elec\_New Bid Ph 2

### Sheet Content:

STORAGE BUILDING  
 I.T. DATA CENTER  
 LIGHTING PLAN

Fresno County Department of Public Works and Planning  
 Capital Projects



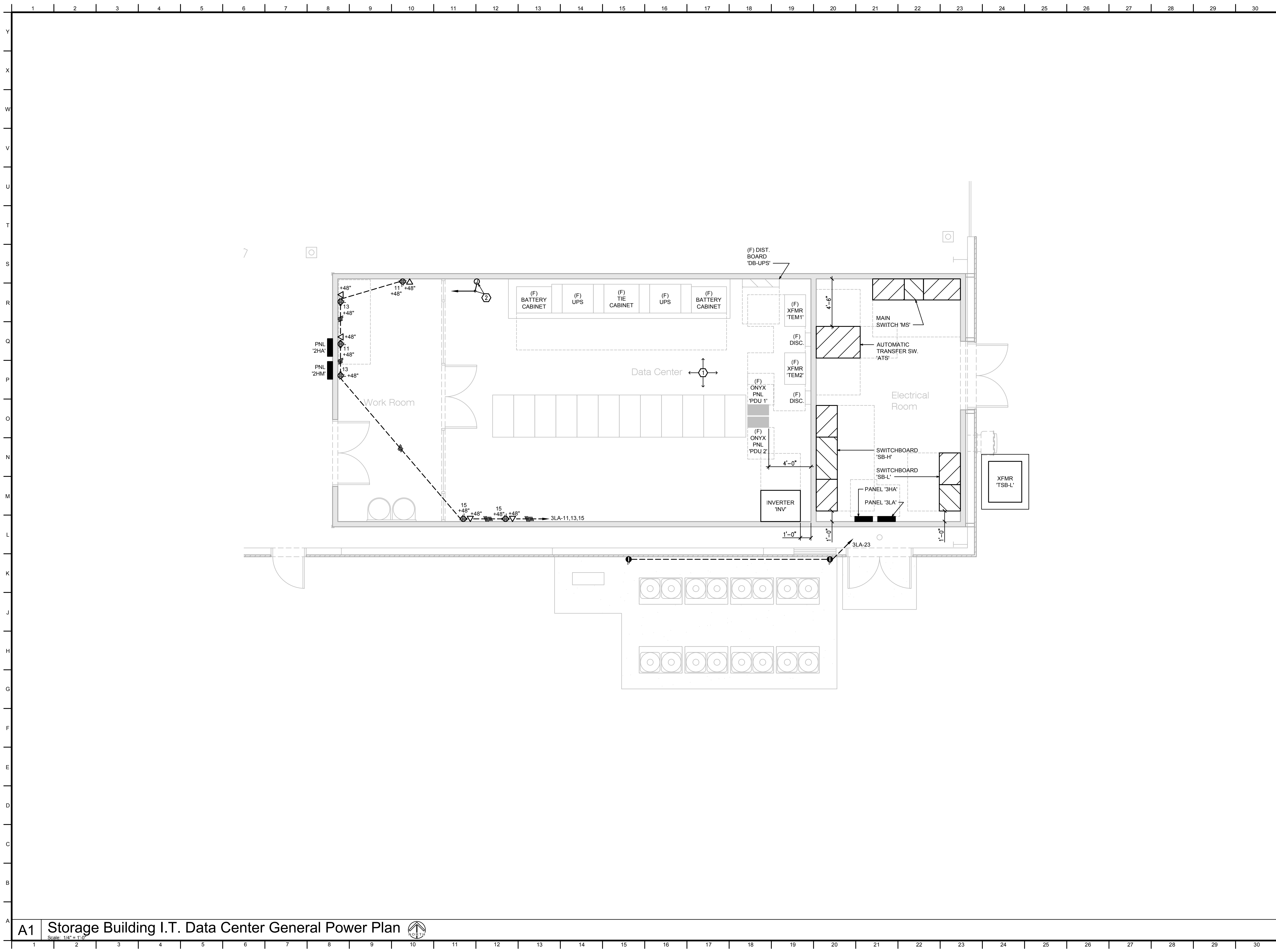
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 Fresno, California 93721

### Sheet No.

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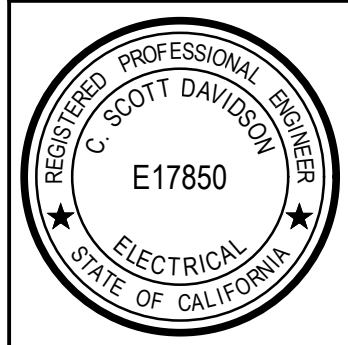


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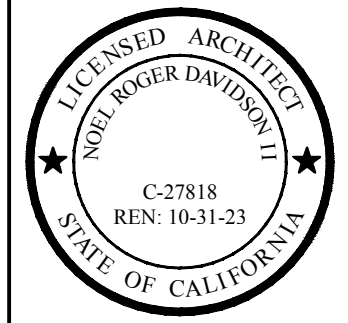


### Key Notes

- IT EQUIPMENT ELECTRICAL INSTALLATION IN DATA CENTER AND WORKROOM PER COUNTY IT DRAWINGS.
- MOUNT JUNCTION BOX AT +96" AFF. RUN (2) 1" C. TO PANEL 2HM.



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### Project:

Sheriff Area 2 Substation Storage Bldg Data Center & Elec Rm Revisions - Bid Package 2  
 1129 N. Armstrong Ave., Fresno, CA 93727  
 APN: 310-133-04 -.05 and -.06  
 ISSUE DATE: 02.10.2022  
 PROJECT NO: T80293 / 19003.03  
 FILE NAME: 19074 - 7\_Elec\_New Bid Ph 2

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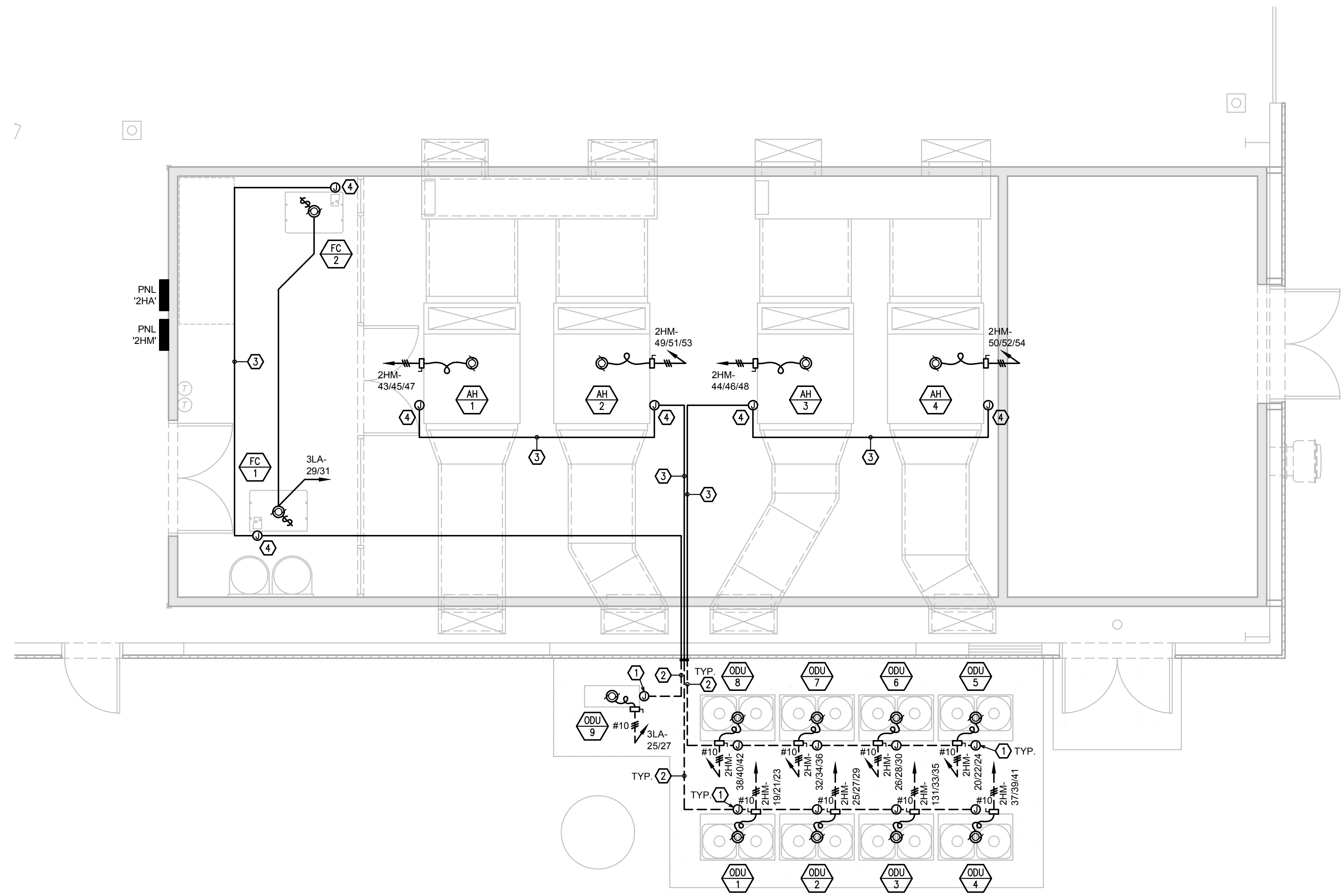
STORAGE BUILDING  
 I.T. DATA CENTER  
 GENERAL POWER PLAN



### Sheet No.

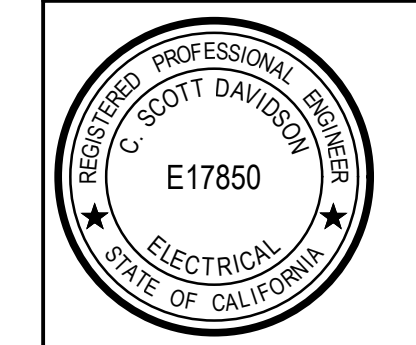
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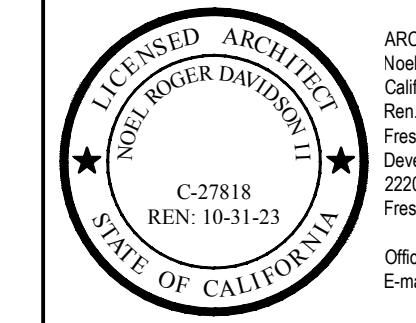


### Key Notes

1. WP JBOX FOR MECHANICAL CONTROLS.
2. 1" C. FOR MECHANICAL CONTROLS.
3. 3/4" C. FOR MECHANICAL CONTROLS.
4. TAKE CONDUIT TO MECHANICAL UNIT CONTROL POINT.



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### Sheet Content:

STORAGE BUILDING  
 I.T. DATA CENTER  
 HVAC ELECTRICAL PLAN



Sheet No.

# E3.2

## SHEET INDEX

E1	SINGLE LINE DIAGRAM
E2	PANEL SCHEDULES
E3	DATA CENTER LAYOUT
E4	DATA CENTER EQUIPMENT
E5	UPS AND NETWORK RACK LAYOUTS
E6	UPS INTERCONNECT
E7	RASP 1EACH PER UPS
E8	RASP PANEL MOUNTING
E9	NETWORK RACK AND POWER TRAY
E10	RACK MOUNT PDU 3P L21-30P
E11	LADDER RACK WITH GROUND BAR
E12	LADDER RACK SUPPORTING METHOD
E13	RACK GROUNDING CABLE KIT
E14	UNDER TILE GROUND GRID PLAN
E15	SERVER ROOM FIRE SUPPRESSION LAYOUT
E16	FIRE SERVER ROOM SEALING
E17	NETWORK CLOSET LAYOUT
E18	INDIVIDUAL RACK VIEW WITH POWER OUTLETS AND VERTICAL WIRE MANAGEMENT 6"
E19	DATA CENTER HOUSEKEEPING PAD
E20	LADDER RACK SUPPORTING METHOD EXPANDED VIEW

REVISIONS	BY

FRESNO COUNTY SHERIFF SUBSTATION

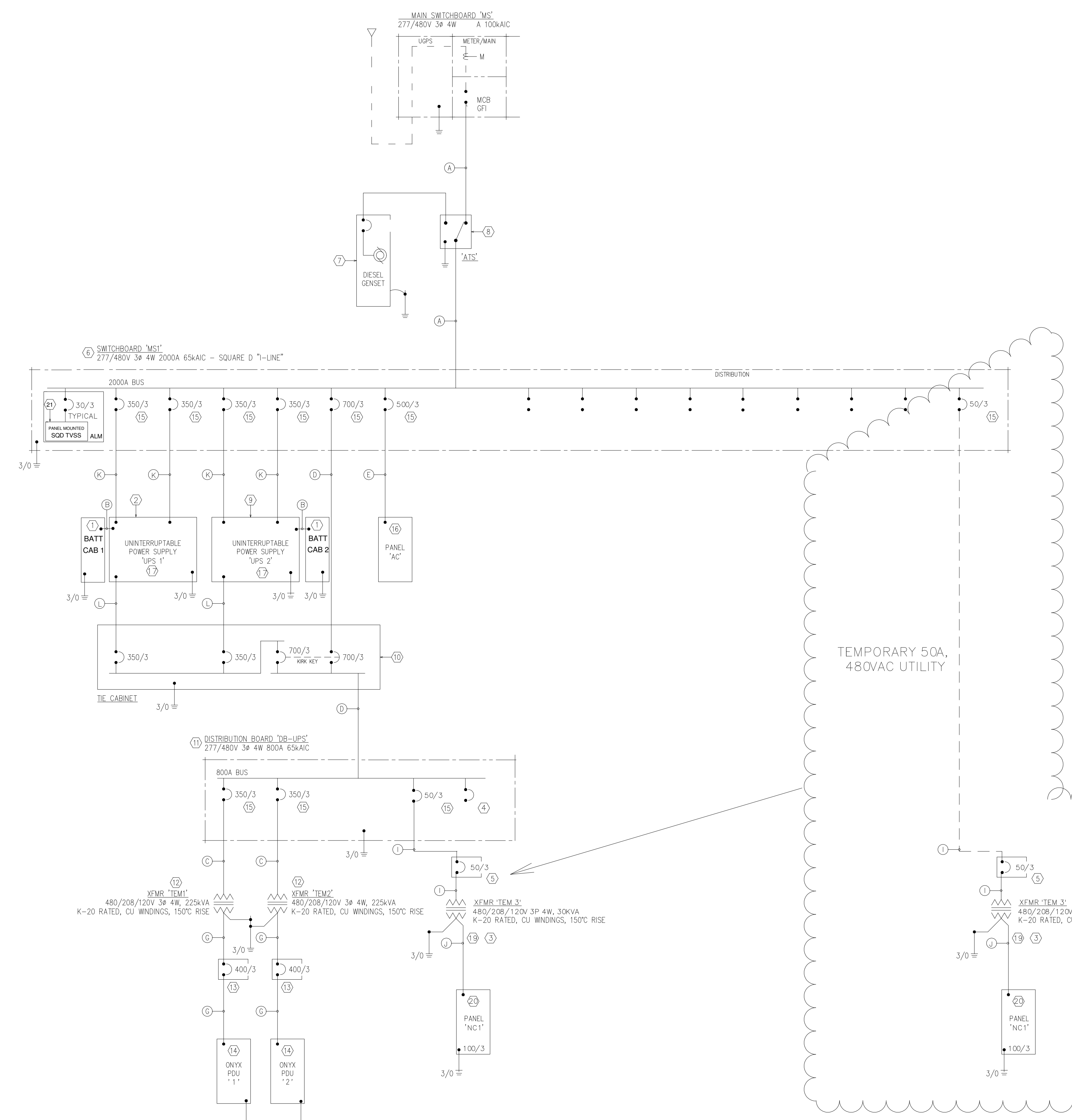
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DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN BY	ISD SHERIFF E00
SHEET	E00

**KEY NOTES**

- TOSHIBA G9000 BATTERY CABINET
- TOSHIBA G9000 UPS FURNISHED AND INSTALLED BY CONTRACTOR. FACTOR STARTUP BY MANUFACTURER. PROVIDE COMMON CONCRETE PAD FOR 225kVAUPSs, BATTERY CABINETS, AND TIE CABINET.
- LOCATED IN OFFICE SPACE NETWORK CLOSET
- FUTURE SPACE
- IN ROOM 50 AMP TRANSFORMER DISCONNECT
- PROVIDE SQUARE D "I-LINE", FREESTANDING SWITCHBOARD AND CONCRETE PAD. PROVIDE (4) 350 AMP CIRCUIT BREAKERS FOR USE IN THIS BOARD. PROVIDE OTHER BREAKERS AS NOTED.
- 0000 kW DIESEL GENSET FURNISHED AND INSTALLED BY CONTRACTOR. PROVIDE LOAD SIDE FEEDER AND CONNECTIONS FOR BATTERY CHARGER, JACKET HEATER, ALTERNATOR WINDING HEATER AND 2 STATUS MONITORING PANELS AND ETHERNET MODULES.
- 0000 AMP, 4-POLE AUTOMATIC TRANSFER SWITCH FURNISHED AND INSTALLED BY CONTRACTOR. FREESTANDING NEMA 1 ENCLOSURE. PROVIDE CONCRETE PAD.
- TOSHIBA G9000 UPS FURNISHED AND INSTALLED BY CONTRACTOR. FACTOR STARTUP BY MANUFACTURER. PROVIDE COMMON CONCRETE PAD FOR 225kVAUPSs, BATTERY CABINETS, AND TIE CABINET.
- TOSHIBA TIE CABINET FURNISHED AND INSTALLED BY CONTRACTOR. PROVIDE SQUARE D "I-LINE", FREESTANDING DISTRIBUTION BOARD AND CONCRETE PAD. PROVIDE COMMON CONCRETE PAD FOR UPSs, BATTERY CABINETS, AND TIE CABINET.
- PROVIDE SQUARE D "I-LINE", FREESTANDING SWITCHBOARD AND CONCRETE PAD.
- PROVIDE CONCRETE PAD AND INSTALL CONTRACTOR FURNISHED SOLA-HD K-20 RATED TRANSFORMERS.
- PROVIDE SQUARE D ENCLOSED CIRCUIT BREAKER.
- ONYX POWER DISTRIBUTION UNITS FURNISHED AND INSTALLED BY CONTRACTOR.
- PROVIDE "I-LINE" CIRCUIT BREAKER WITH SHUNT-TRIP SHUNT TRIP NODES ARE INDICATED.
- PROVIDE "I-LINE" CIRCUIT BREAKERS WITH SHUNT-TRIP AND MODBUS FOR ALL HVAC LOADS IN THIS PANELBOARD. SHUNT TRIPS NODES ST10- ST15 AND MODBUS NODES MB20- MB25.
- USE BURNDY CRIMP CONNECTORS IN UPS ONLY
- CERTIFY ALL CIRCUITBREAKERS
- PROVIDE CONCRETE PAD AND INSTALL CONTRACTOR FURNISHED SOLA-HD K-20 RATED TRANSFORMER.
- FURNISH AND INSTALL 3P PANEL RATED AT MINIMUM 100AMPS CONNECT CIRCUITS AND LABEL ACCORDINGLY.
- NEW INTERNALLY MOUNTED I-LINE SPD UNIT 240kV SPD TVSS WITH EMI/RFI FILTERING, AUDIBLE ALARM, DRY CONTACTS TO BE CONNECTED TO BUILDING MANAGEMENT SYSTEM.

**FEEDERS**

- A. Feeder
- B. (2) SETS #373kCMIL DLO, 1#3/0G.
- C. 3" C. 3#500kCMIL, 1#3/0G.
- D. (2) SETS - 3" C. 3#500kCMIL, 1#3/0G.
- E. 4" C. 4#500kCMIL, 1#3/0G.
- F. 3" C. 4#3/0, 1#3/0G.
- G. 4" C. 5#500kCMIL (DOUBLE NEUTRAL), 1#3/0G.
- H. 2" C. 4#4, 1#4G.
- I. 2" C. 4#4, 1#4G.
- J. 2" C. 5#4, (DOUBLE NEUTRAL) 1#4G.
- K. 2#3/0/PH, 2-#3/0G, IN EACH OF 2- 3" C DLO CABLE ONLY. USE BURNDY CONNECTOR ONLY.
- L. 2#3/0/PH, 2-#3/0G, IN EACH OF 2- 3" C DLO CABLE ONLY. USE BURNDY CONNECTOR ONLY.
- K AND L SPECIAL NOTE. BUSS BAR CLEARANCE MUST BE MAINTAINED.
- 17B. DLO 373.7 file X HOLE BELLED LUG BURNDY YA34TC12FXB  
DLO HYLUG-4/0 file X HOLE BELLED LUG BURNDY YAV28TC12FXB  
DLO HYLUG-3/0 file X HOLE BELLED LUG BURNDY YAV27TC12FXB



**SINGLE LINE DIAGRAM**

NOT TO SCALE

REVISIONS	BY

**FRESNO COUNTY SHERIFF SUBSTATION**

**SINGLE LINE DIAGRAM**

OWNER	MR
DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN BY	ISD SHERIFF E1
SHEET	E1

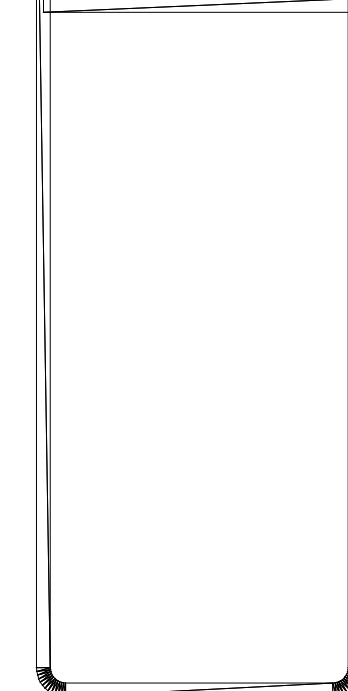
**DEPARTMENT OF INTERNAL SERVICES**  
INTERNAL SERVICES DIVISION  
333 W. Pontiac Way, Building 6, Clovis, California 93612  
Phone: (559) 600-5800



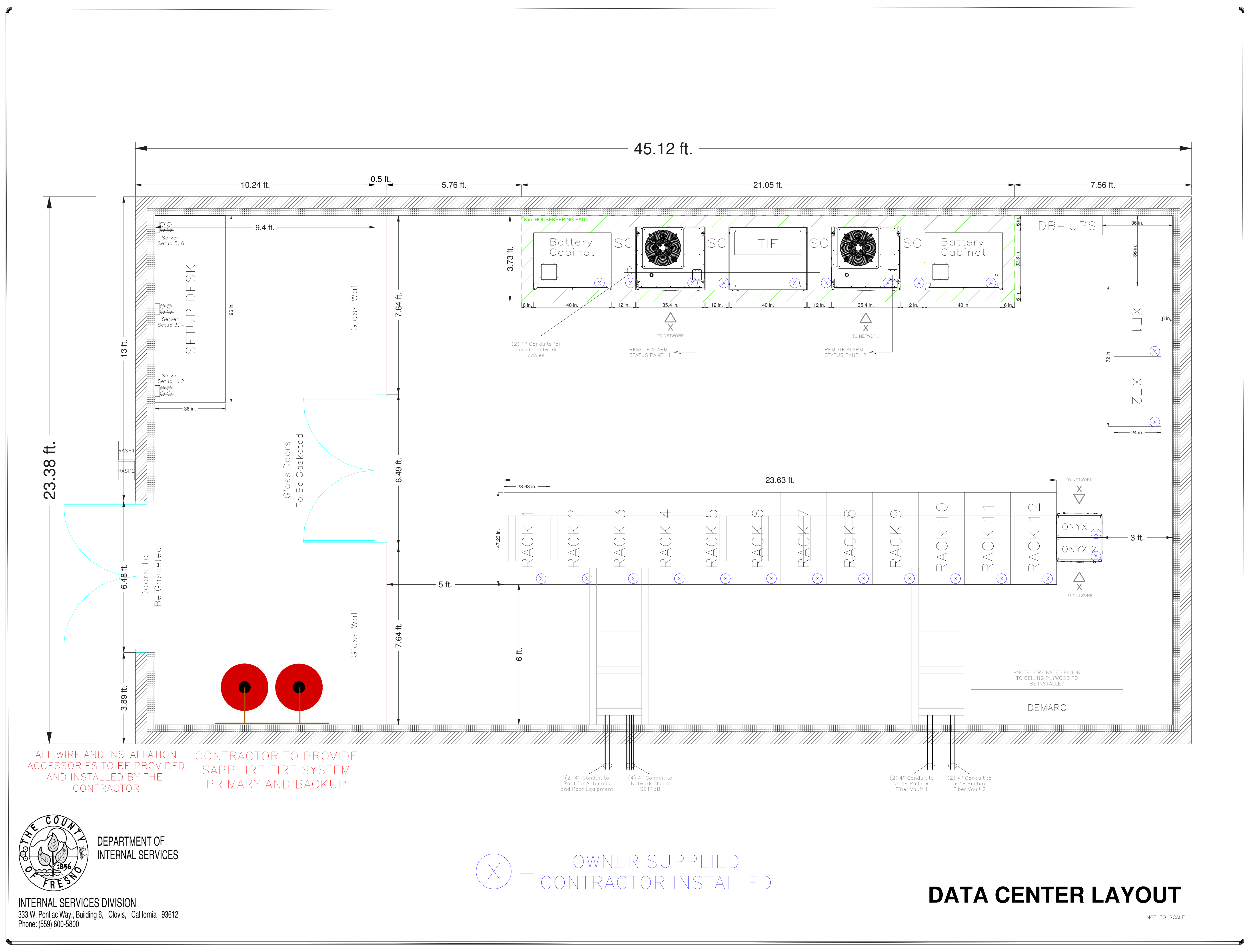


REVISIONS	BY

# FRESNO COUNTY SHERIFF SUBSTATION



OWNER	ISD
MR	MR
ORDER	ORDER
NO	NO
DATE	01/21/2022
SCALE	AS NOTED
DRAWN	ISD SHERIFF E3
SHEET	E3



ALL WIRE AND INSTALLATION ACCESSORIES TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR

CONTRACTOR TO PROVIDE SAPPHIRE FIRE SYSTEM PRIMARY AND BACKUP

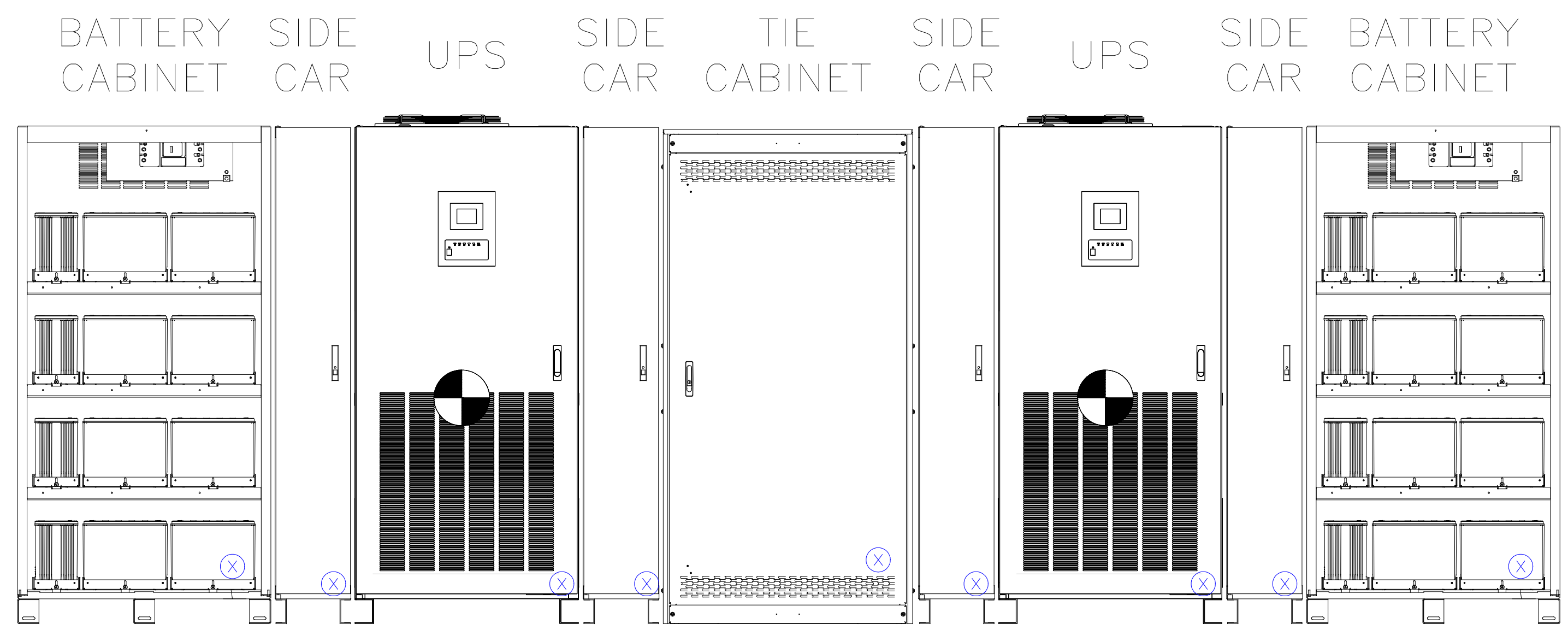
 **DEPARTMENT OF INTERNAL SERVICES**

**INTERNAL SERVICES DIVISION**  
 333 W. Pontiac Way, Building 6, Clovis, California 93612  
 Phone: (559) 600-5800

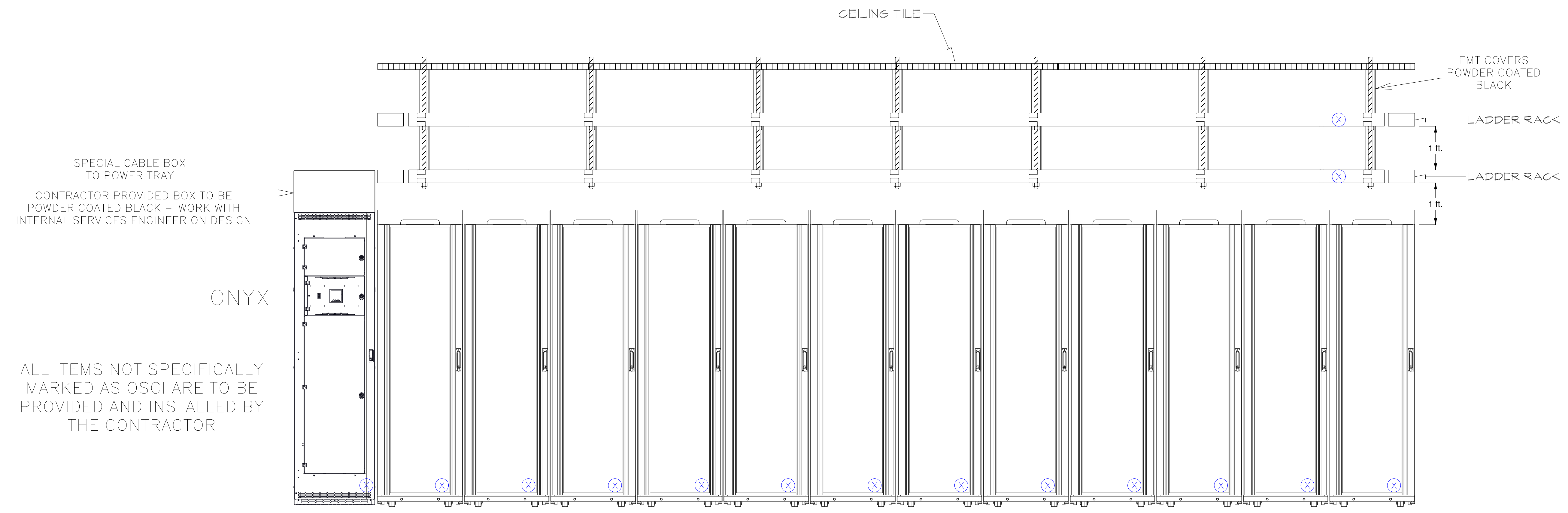
(X) = OWNER SUPPLIED CONTRACTOR INSTALLED

**DATA CENTER LAYOUT**

NOT TO SCALE



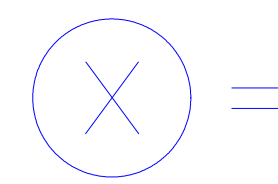
UPS EQUIPMENT FRONT VIEW



DELL RACK AR3300X717

NETWORK RACK FRONT VIEW


**DEPARTMENT OF  
INTERNAL SERVICES**  
  
**INTERNAL SERVICES DIVISION**  
 333 W. Pontiac Way, Building 6, Clovis, California 93612  
 Phone: (559) 600-5800

 = OWNER SUPPLIED  
 CONTRACTOR INSTALLED

**DATA CENTER EQUIPMENT**

NOT TO SCALE

REVISIONS	BY

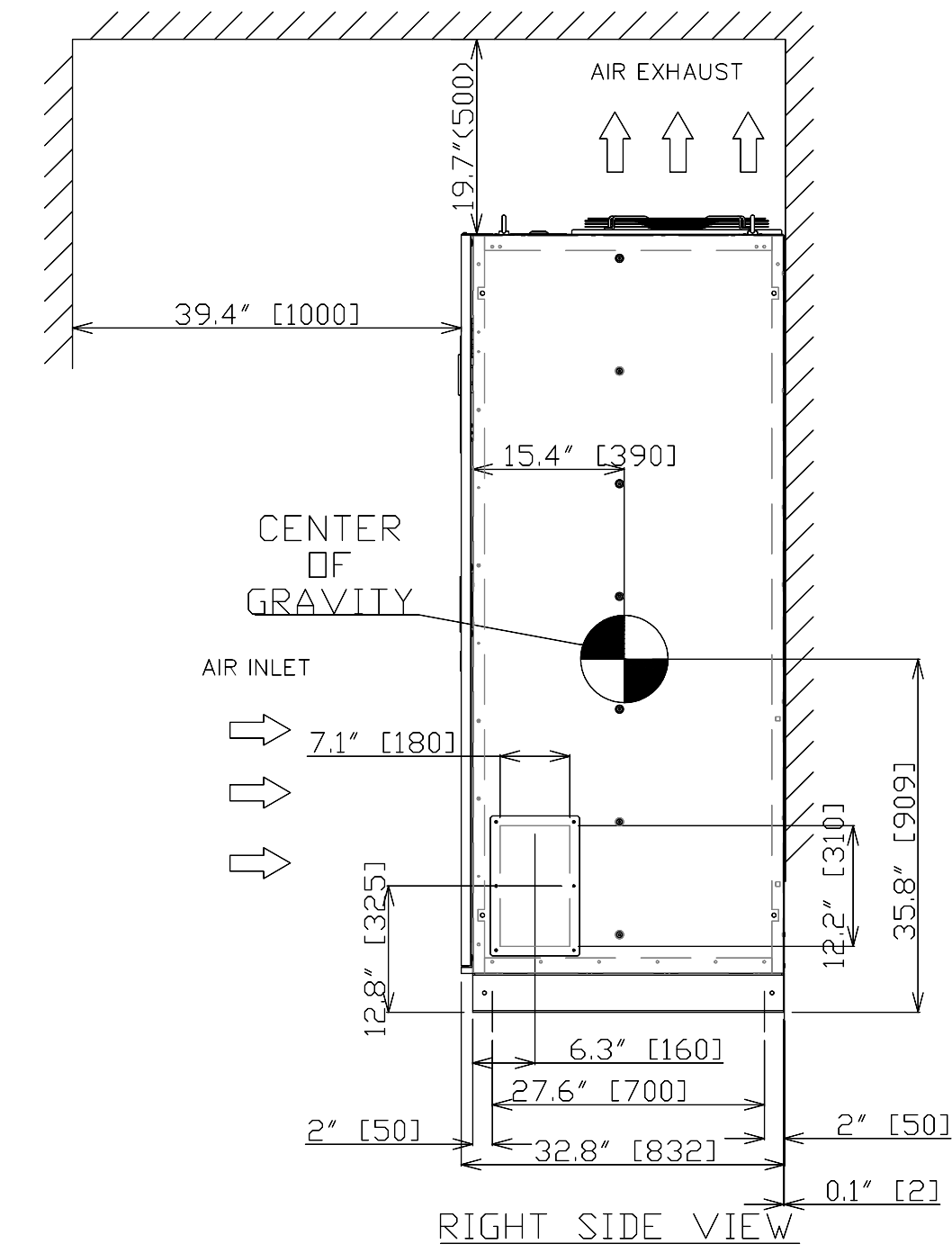
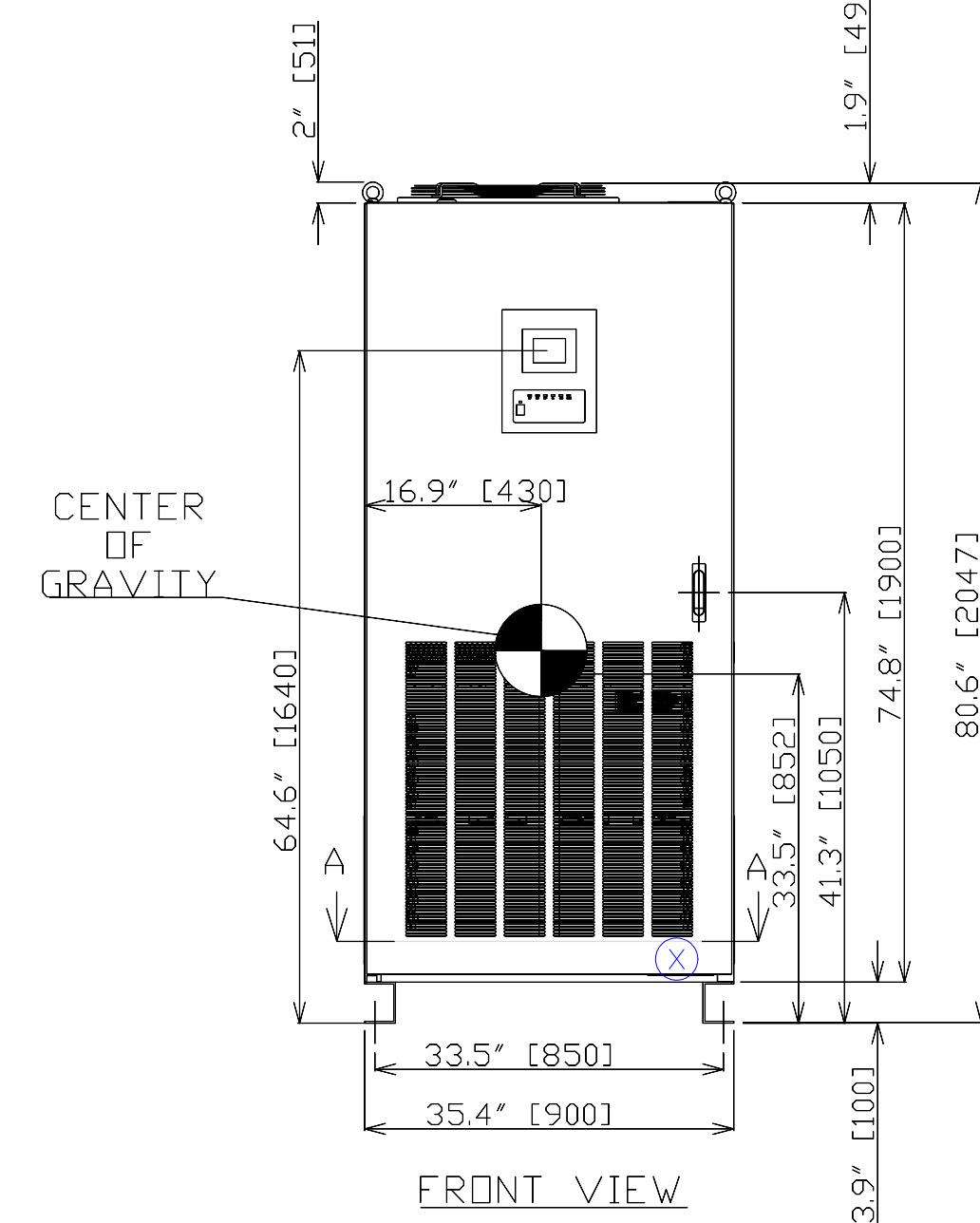
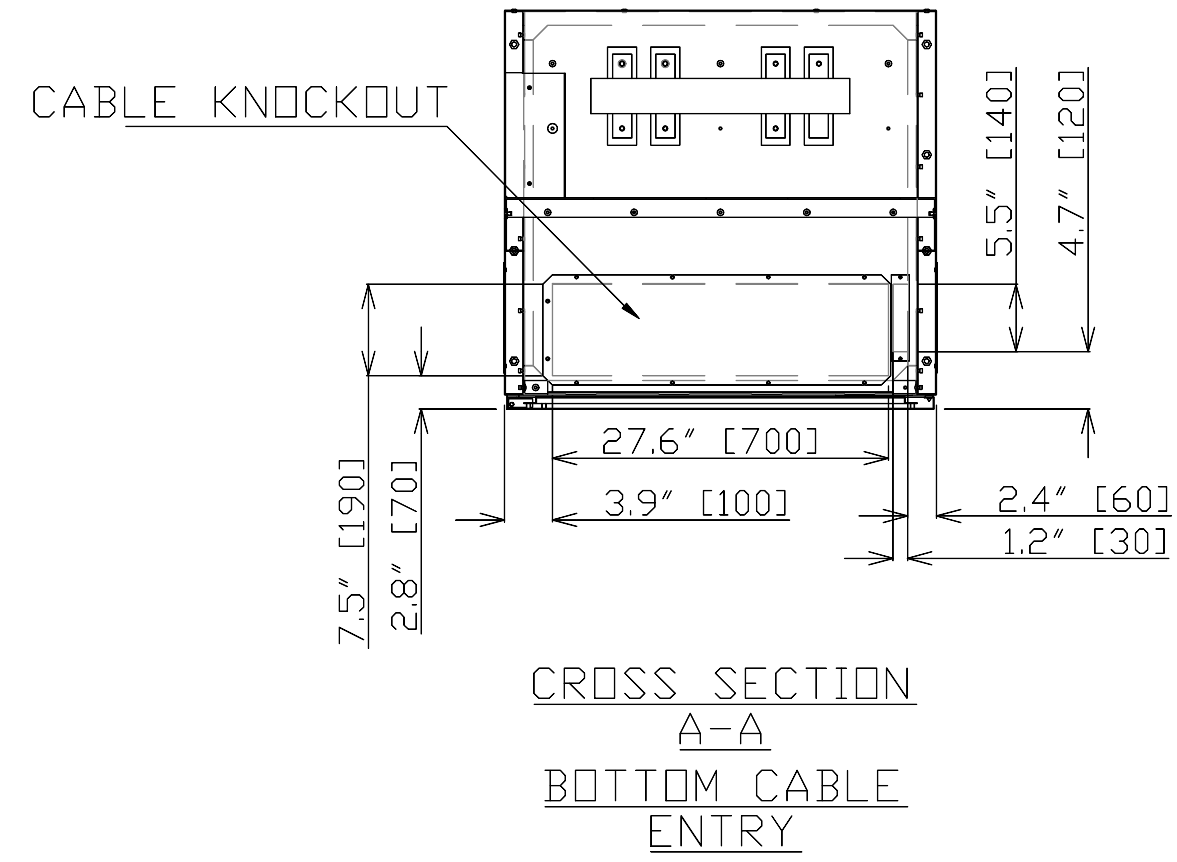
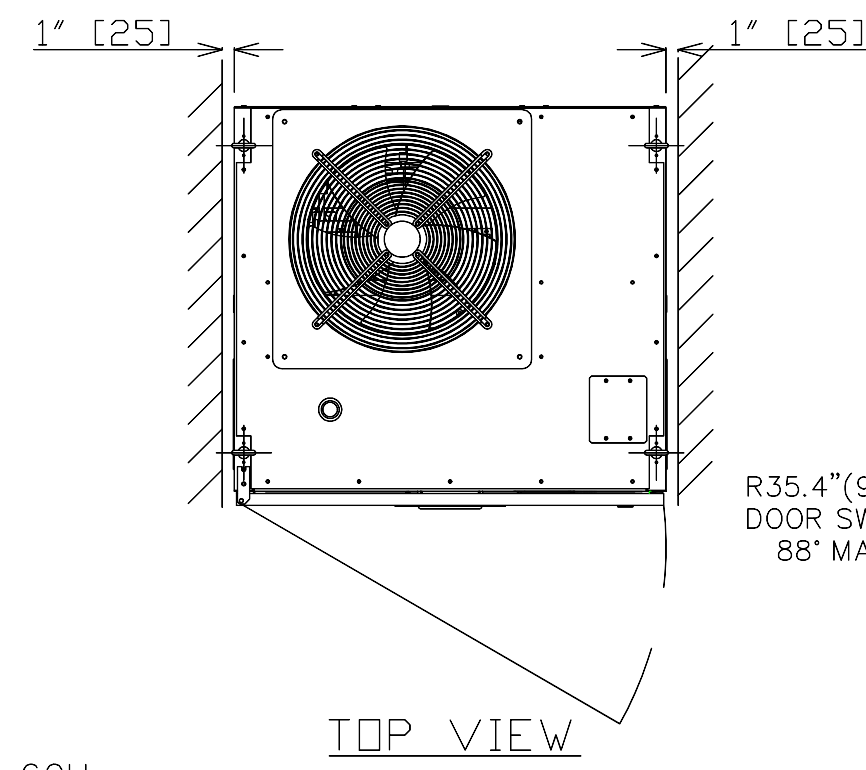
**FRESNO COUNTY SHERIFF SUBSTATION**

OWNER	MR
ORDER	DB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN	ISD SHERIFF E4
SHEET	E4

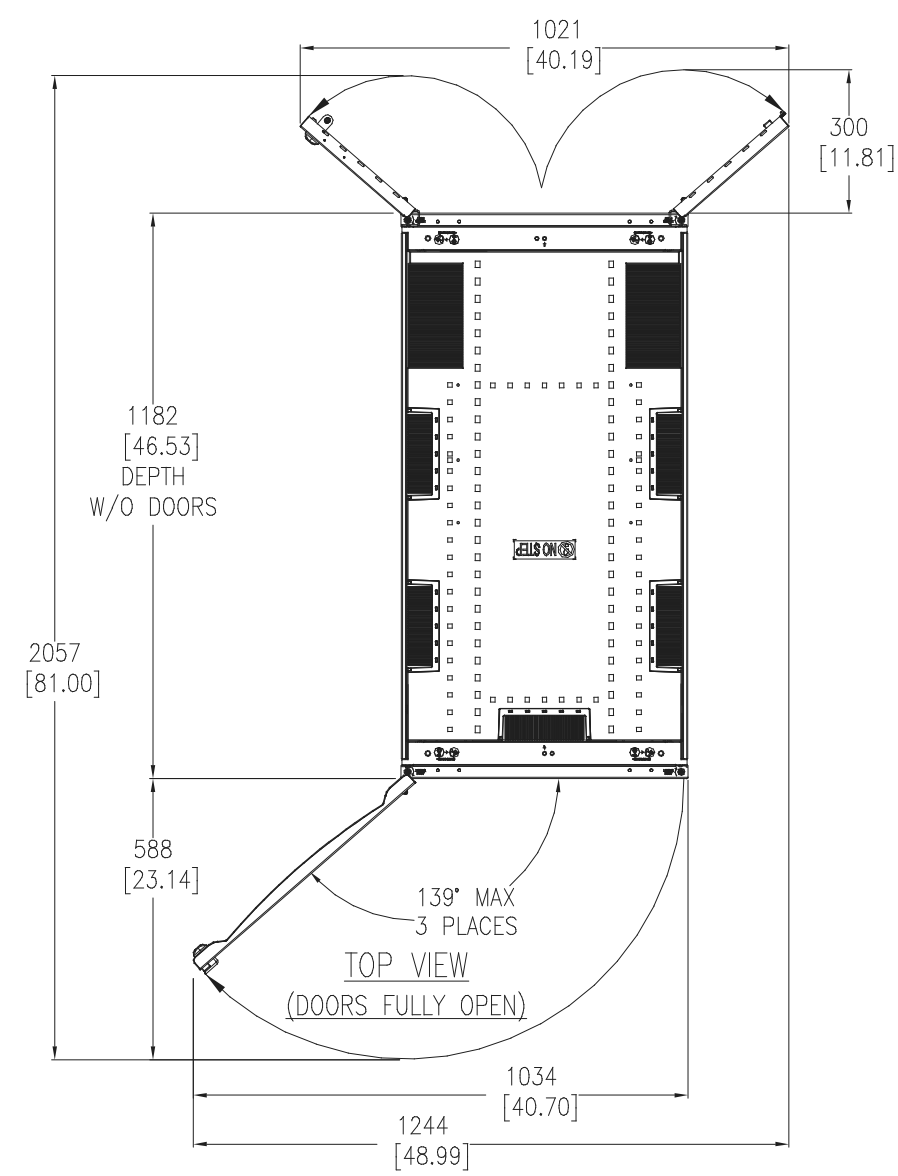
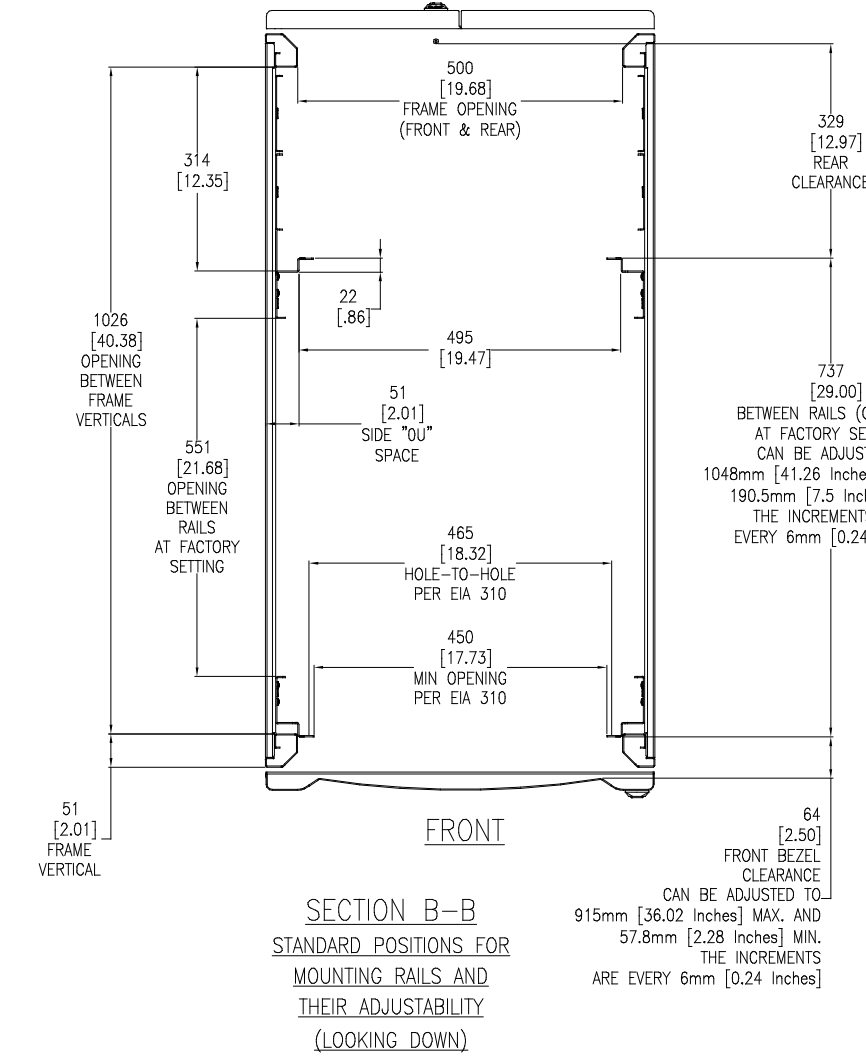
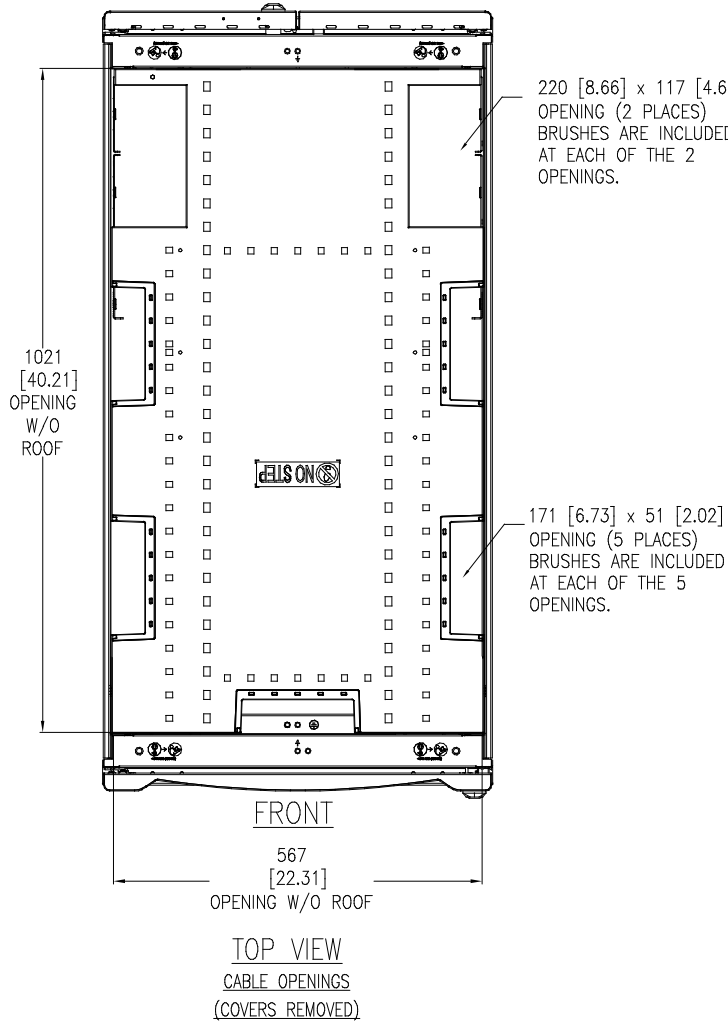
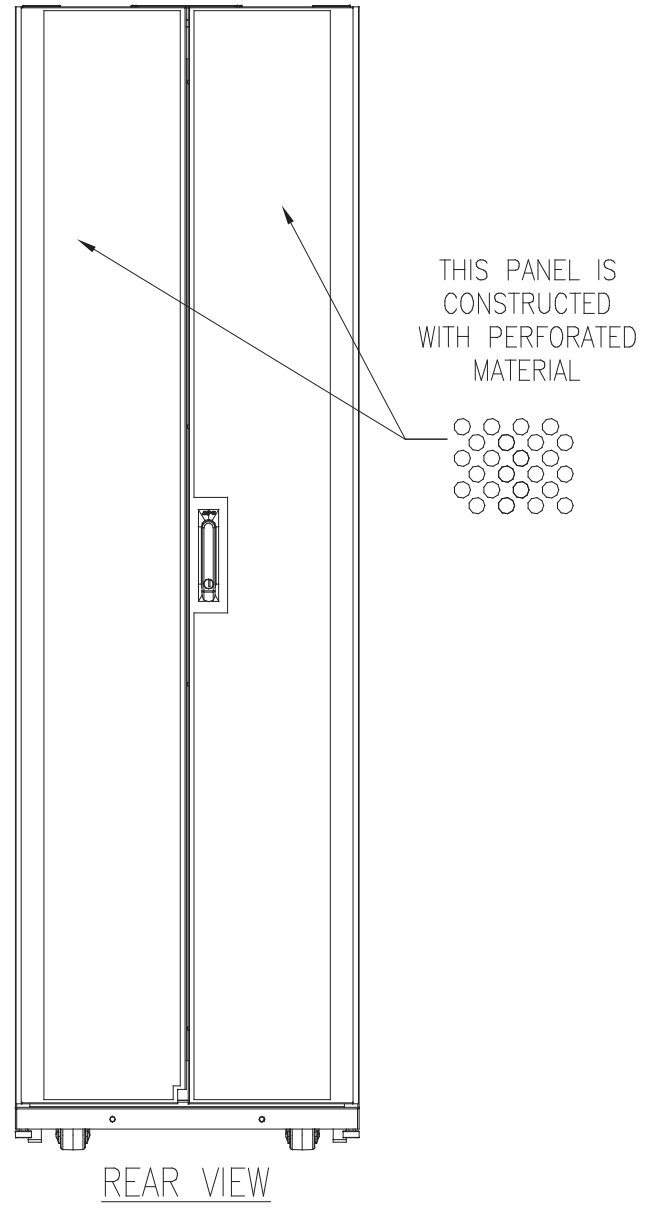
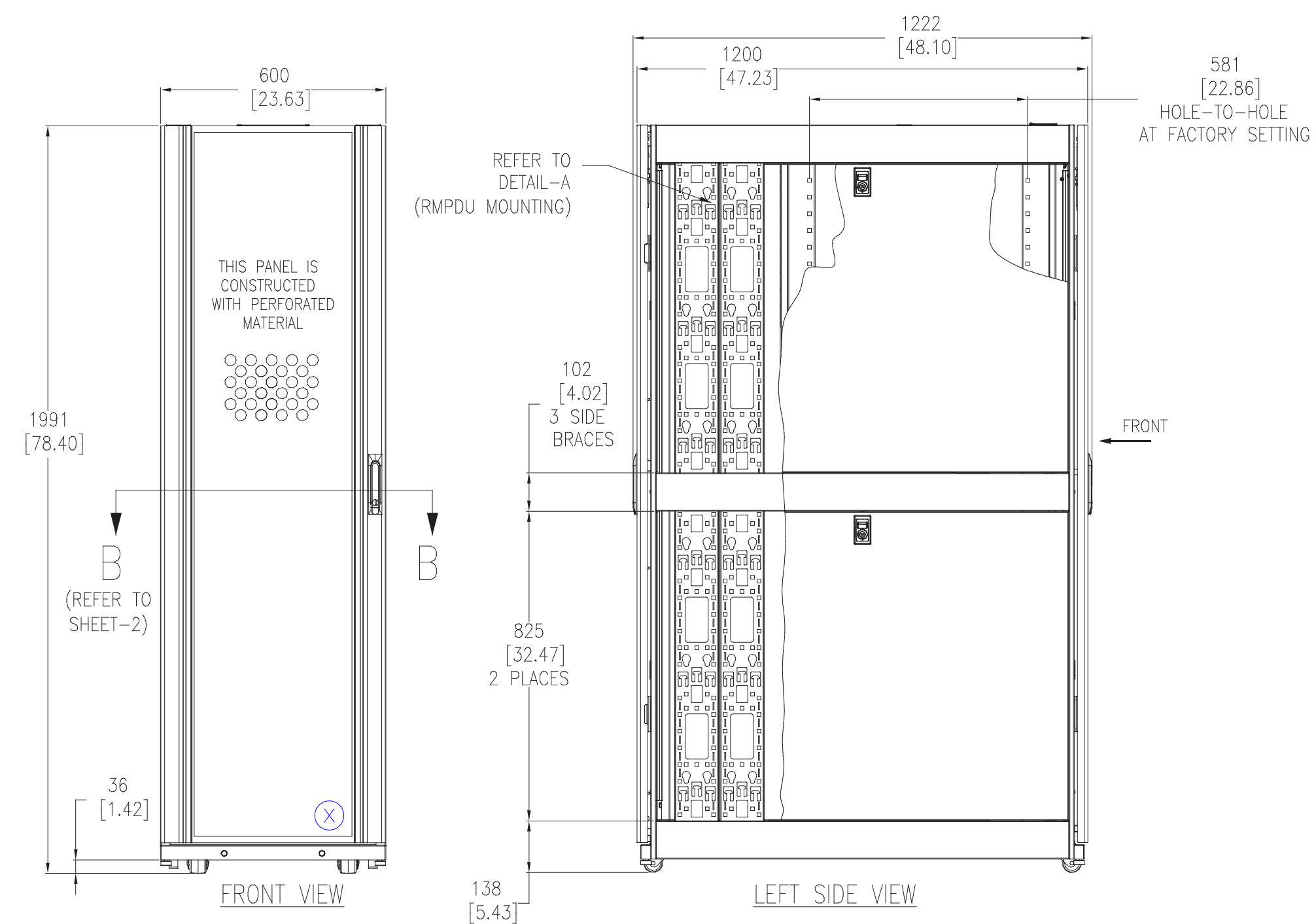
**NOTES**

1. DIMENSIONS ARE SHOWN IN INCHES (MILLIMETERS IN PARENTHESIS).
2. SIDE CLEARANCE OF "1"(25) " IS NOT REQUIRED WITH CABINETS INSTALLED ASIDE.
3. CABINET SHOULD BE MAINTAINED UPRIGHT WITHIN ±15° DURING HANDLING.
4. APPROXIMATE WEIGHTS

TYPE : T90S3S22KS6XSN2  
 RATING : 225kVA-3P3W-480V-60Hz  
 APPROX. WEIGHT : 1,080lbs (490kg)  
 HEAT REJECTION : 22.8 kBTUs/hour



UPS DIMENSION VIEWS



NETWORK RACK VIEWS

(X) = OWNER SUPPLIED  
CONTRACTOR INSTALLED

**UPS AND NETWORK RACK LAYOUTS**

NOT TO SCALE

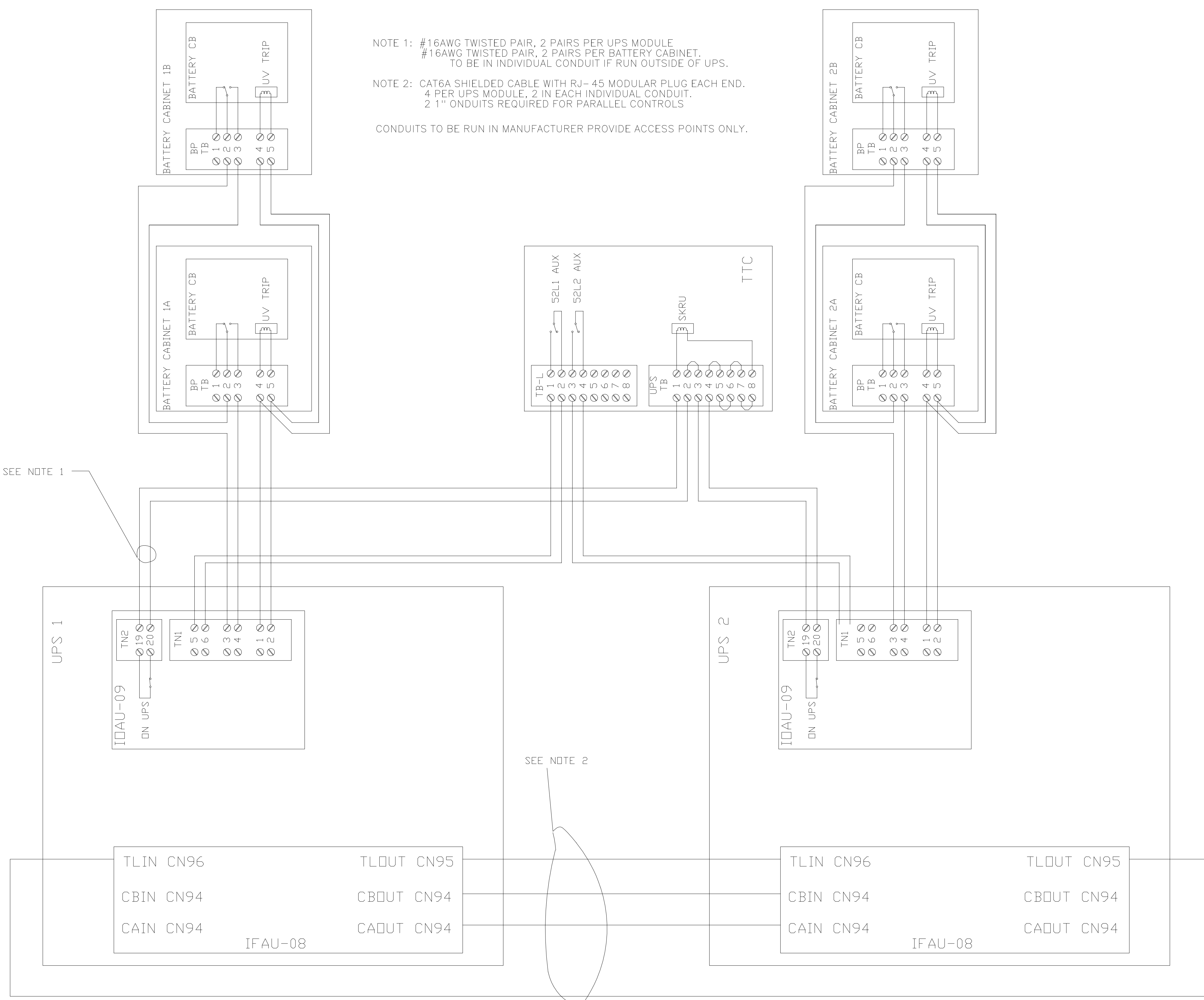
REVISIONS	BY

**FRESNO COUNTY SHERIFF SUBSTATION**

OWNER	MR
DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN BY	ISD SHERIFF E5
SHEET	E5

REVISIONS	BY

# FRESNO COUNTY SHERIFF SUBSTATION



NOTE 1: #16AWG TWISTED PAIR, 2 PAIRS PER UPS MODULE  
 #16AWG TWISTED PAIR, 2 PAIRS PER BATTERY CABINET.  
 TO BE IN INDIVIDUAL CONDUIT IF RUN OUTSIDE OF UPS.

NOTE 2: CAT6A SHIELDED CABLE WITH RJ-45 MODULAR PLUG EACH END.  
 4 PER UPS MODULE, 2 IN EACH INDIVIDUAL CONDUIT.  
 2 1" ONDUITS REQUIRED FOR PARALLEL CONTROLS

CONDUITS TO BE RUN IN MANUFACTURER PROVIDE ACCESS POINTS ONLY.

SEE NOTE 1

SEE NOTE 2



DEPARTMENT OF  
INTERNAL SERVICES

INTERNAL SERVICES DIVISION  
 333 W. Pontiac Way, Building 6, Clovis, California 93612  
 Phone: (559) 600-5800

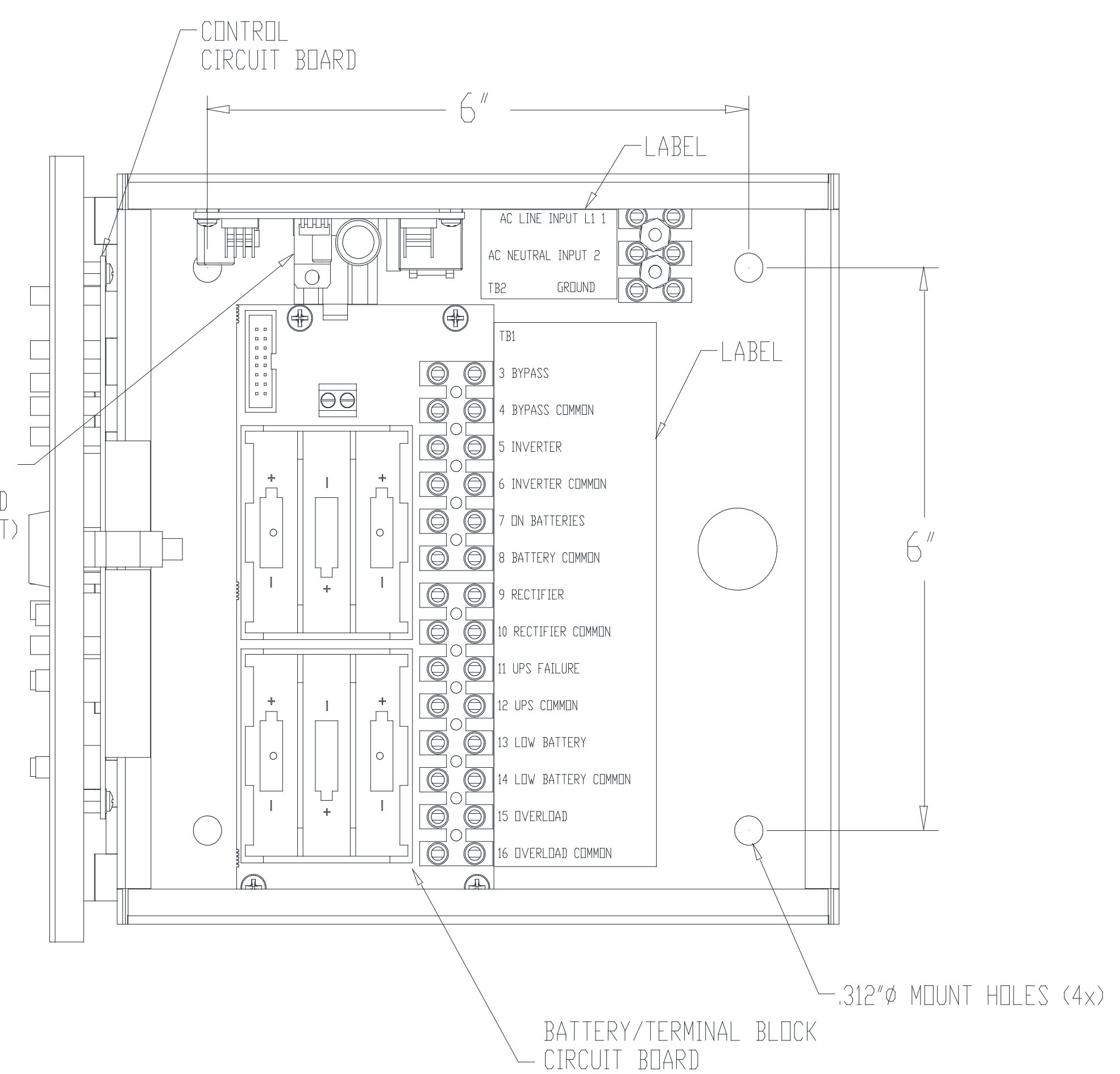
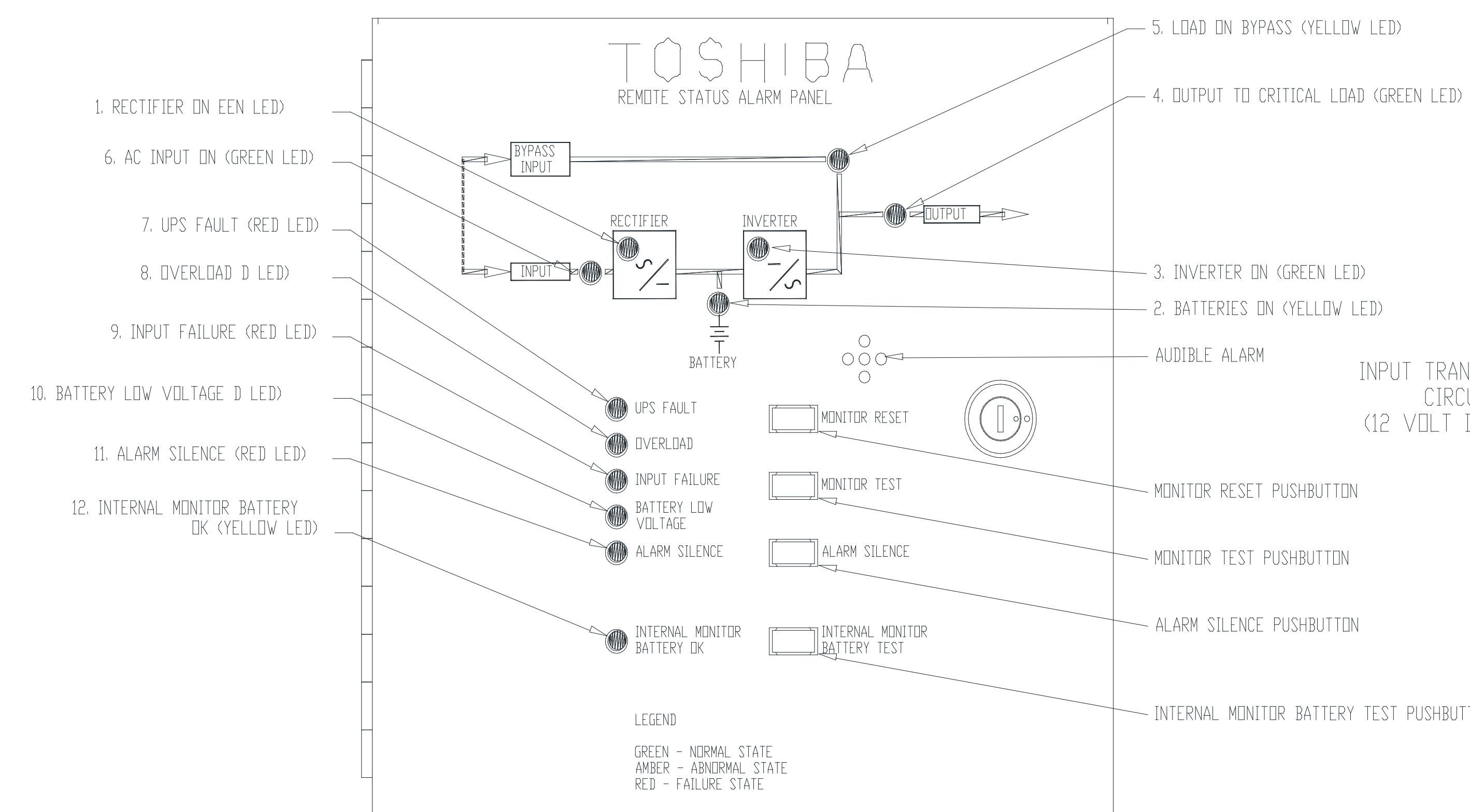
CONTRACTOR TO PROVIDE  
ALL WIRING AND CONNECTORS

## UPS INTERCONNECT

NOT TO SCALE

OWNER	MR
DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN BY	ISD SHERIFF E6
SHEET	E6

REVISIONS	BY



OVERLOAD COMMON	14
OVERLOAD	13
LOW BATTERY COMMON	12
LOW BATTERY	11
SUMMARY ALARM COM.	2
SUMMARY ALARM	1
CONVERTER OPERATION COM.	10
CONVERTER OPERATION	9
BATTERY OPERATION COM.	8
BATTERY OPERATION	7
INVERTER COMMON	6
LOAD ON INVERTER	5
BYPASS COMMON	4
LOAD ON BYPASS	3

EXTERNAL TERMINAL STRIP IN UPS (TN2)

16 OUTPUT OVERLOAD COMMON
15 OUTPUT OVERLOAD
14 LOW BATTERY COMMON
13 LOW BATTERY
12 UPS FAILURE COMMON
11 UPS FAILURE
10 RECTIFIER COMMON
9 RECTIFIER
8 BATTERY COMMON
7 ON BATTERIES
6 INVERTER COMMON
5 LOAD ON INVERTER
4 BYPASS COMMON
3 BYPASS

TERMINAL STRIP TB1 IN R.S.A.P.

EACH UPS REQUIRES A CABLE PART NUMBER T1612SPOS- 22DR LAKE CABLE IN 1.5"Ø TO REMOTE ALARM STATUS PANEL IN DISPATCH ROOM

EACH RASP REQUIRES A DEDICATED 120V 20 AMP UPS POWER CIRCUIT

EACH UPS REQUIRES A PAIR OF WIRES FOR FIRES SYSTEM SHUTDOWN CABLE

CONTRACTOR TO PROVIDE ALL WIRING AND CONNECTORS

**RASP 1 EACH PER UPS**

NOT TO SCALE



DEPARTMENT OF INTERNAL SERVICES

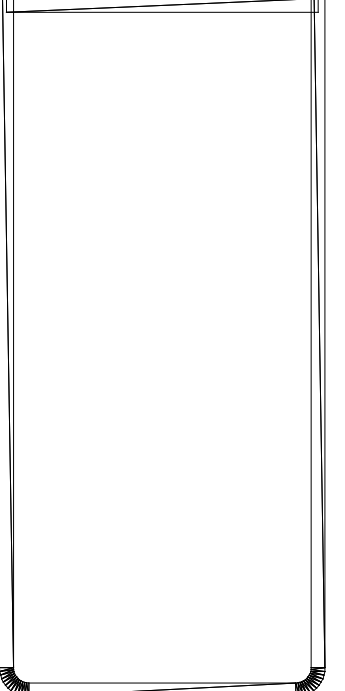
INTERNAL SERVICES DIVISION  
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Phone: (559) 600-5800

**FRESNO COUNTY SHERIFF SUBSTATION**

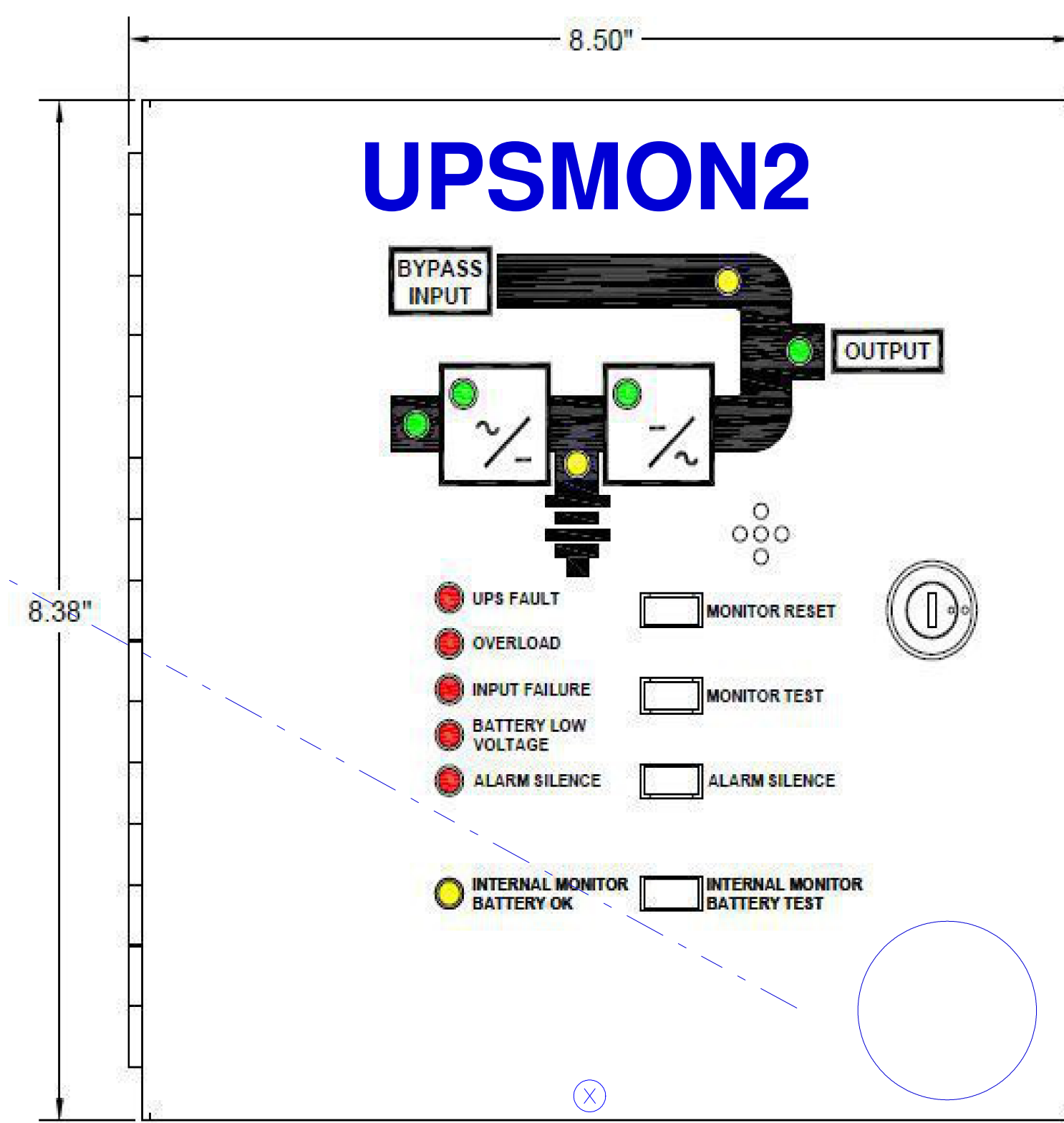
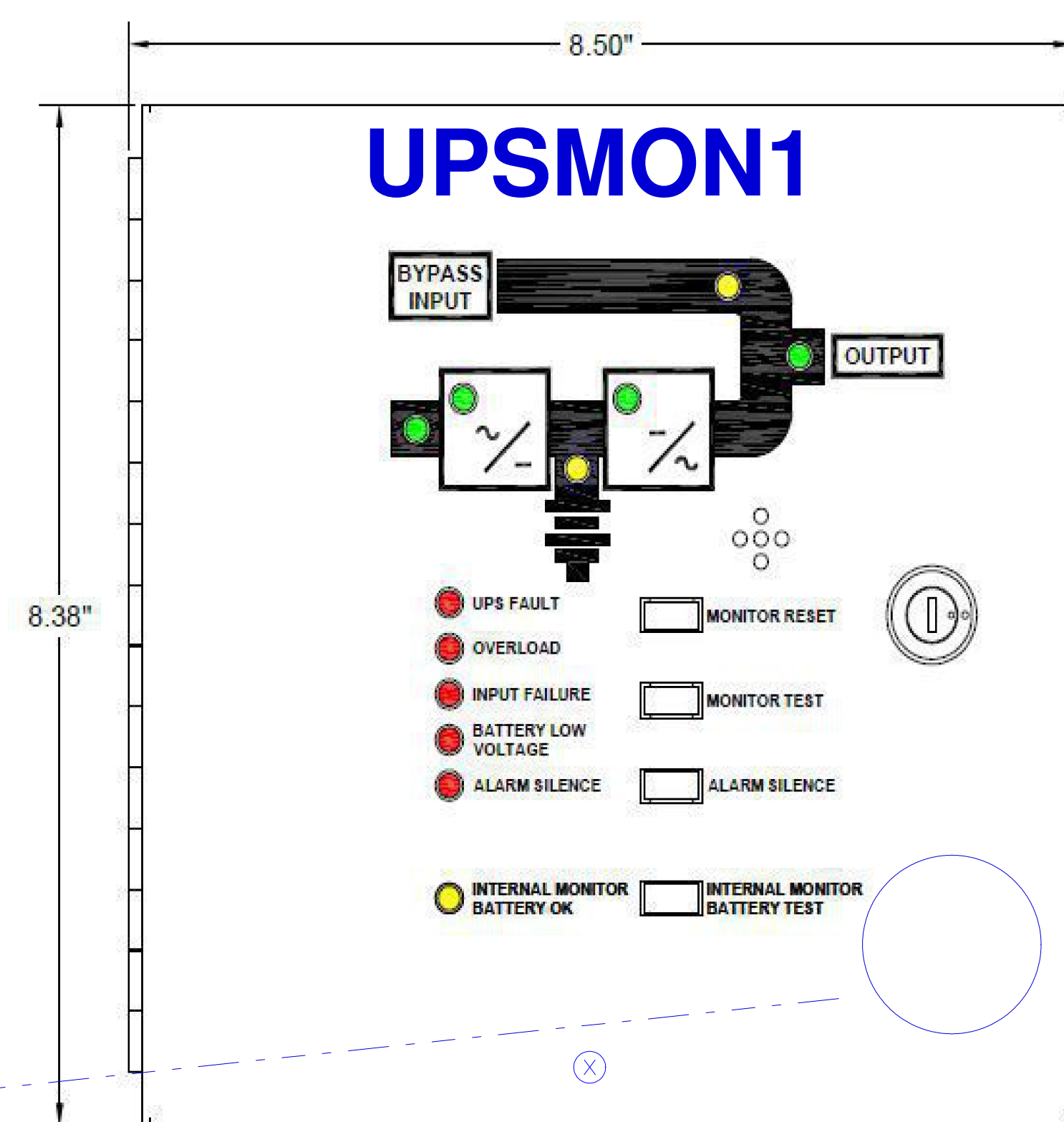
OWNER	MR
ORDER	BIB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN	ISD SHERIFF E7
SHEET	E7

REVISIONS	BY

**FRESNO COUNTY SHERIFF SUBSTATION**



OWNER	ISD
MR	MR
ORDER	01/21/2022
BY	AS NOTED
DATE	ISD SHERIFF E8
SCALE	SHEET



**CONDUIT ENTRANCE LOCATIONS  
BACK OF BOXES ONLY**

⊗ = OWNER SUPPLIED  
CONTRACTOR INSTALLED

**RASP PANEL MOUNTING**

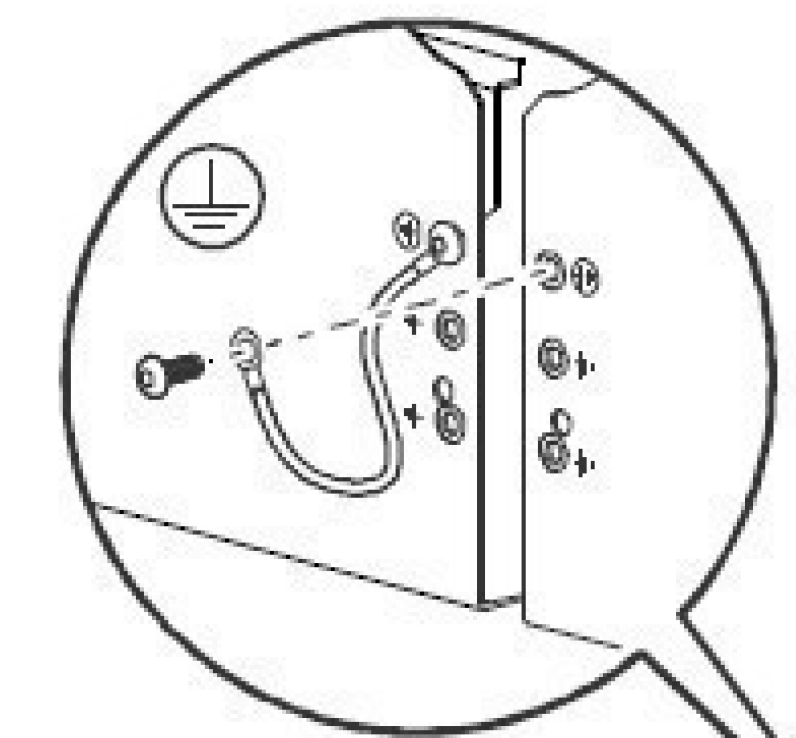
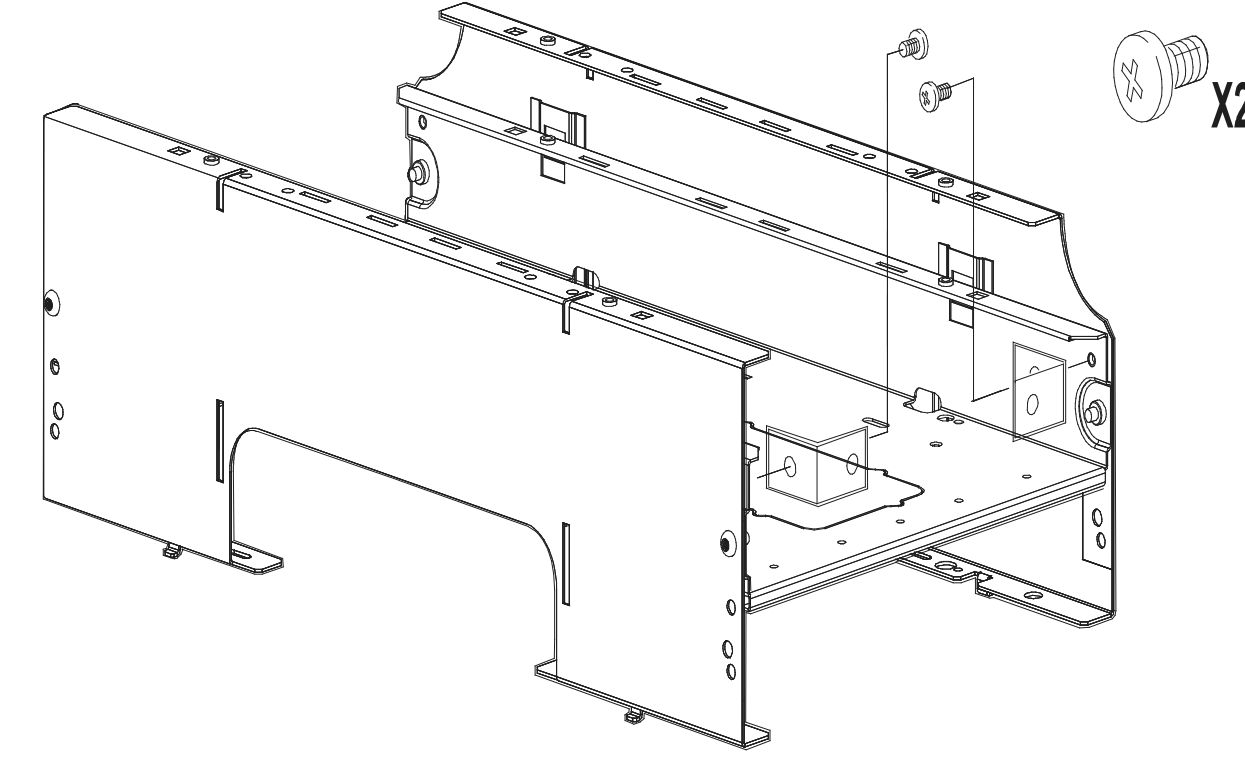
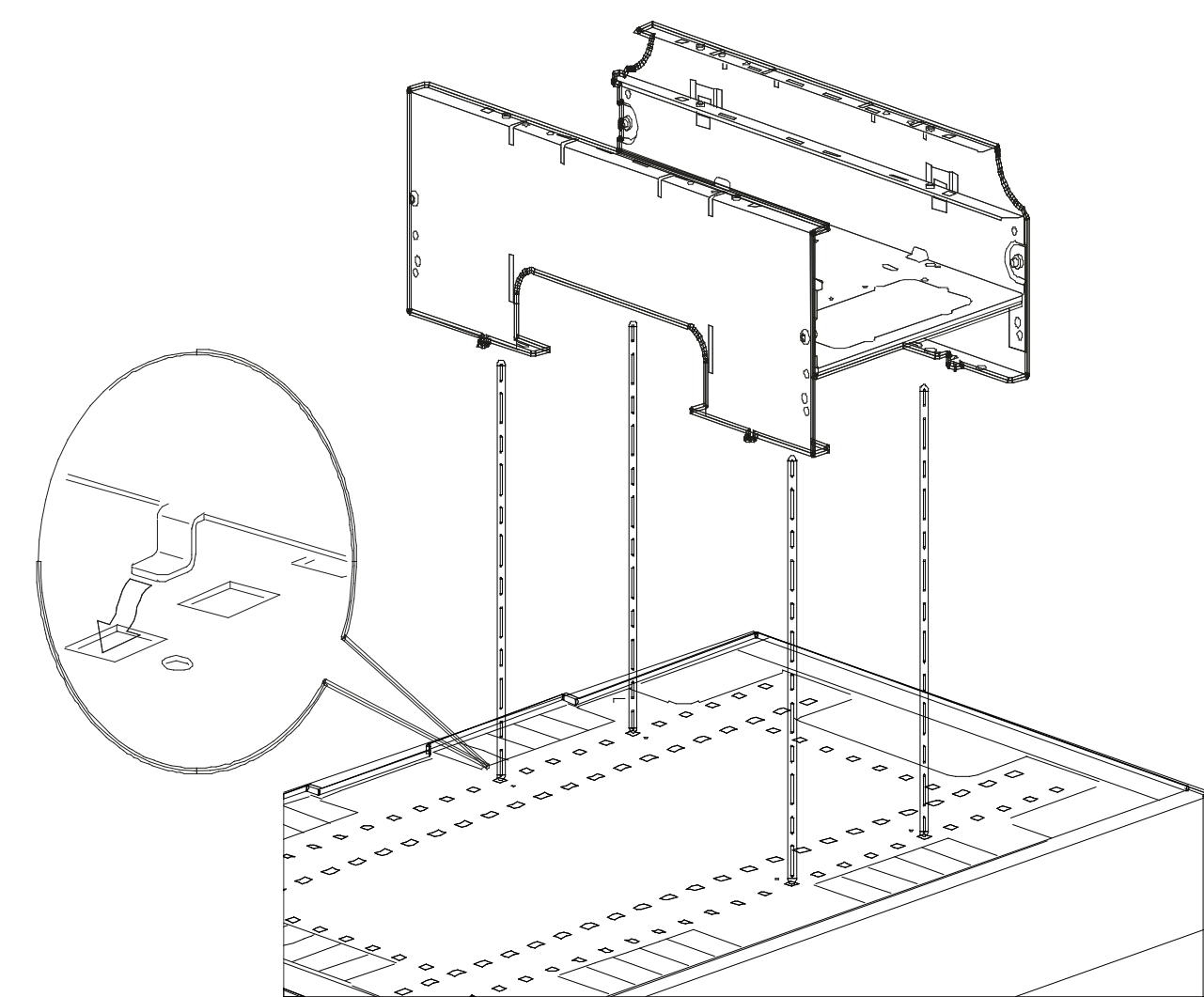
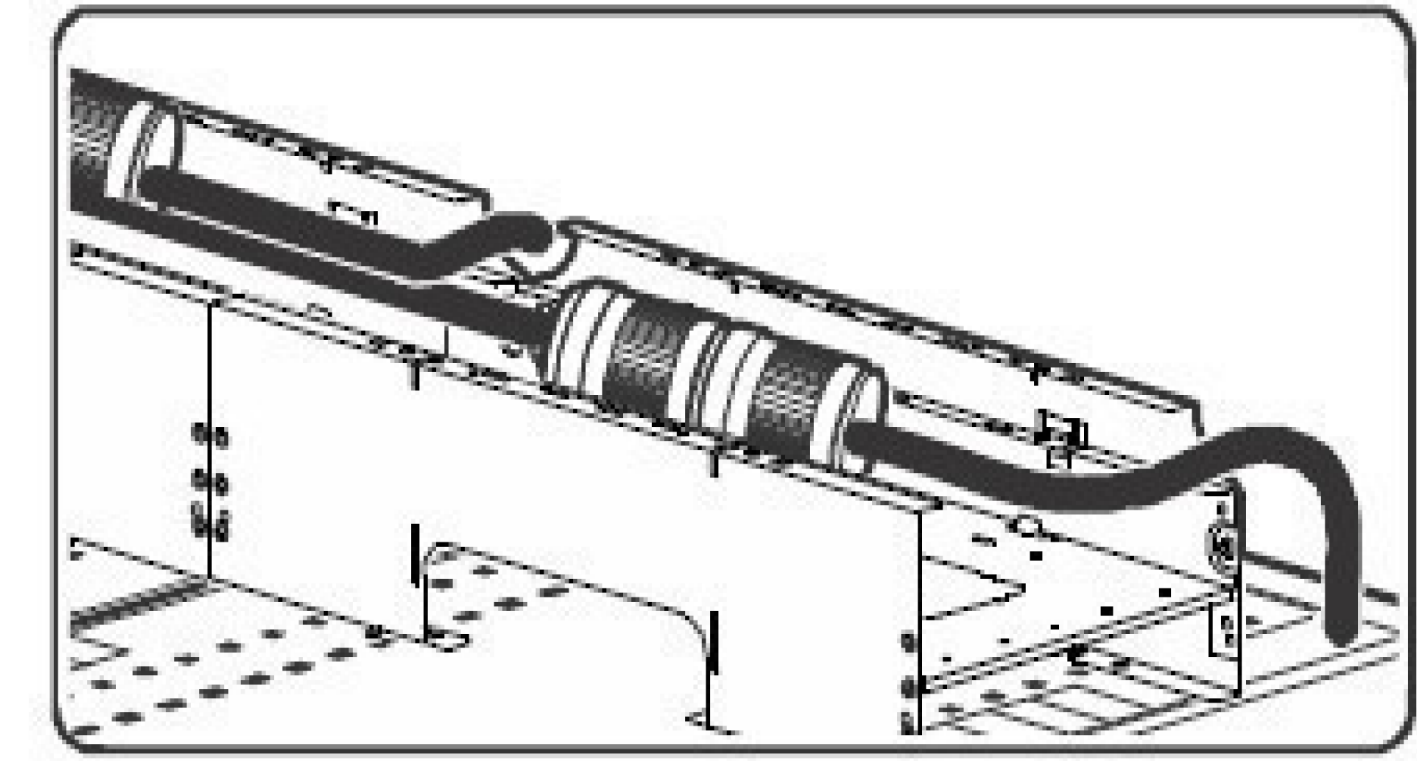
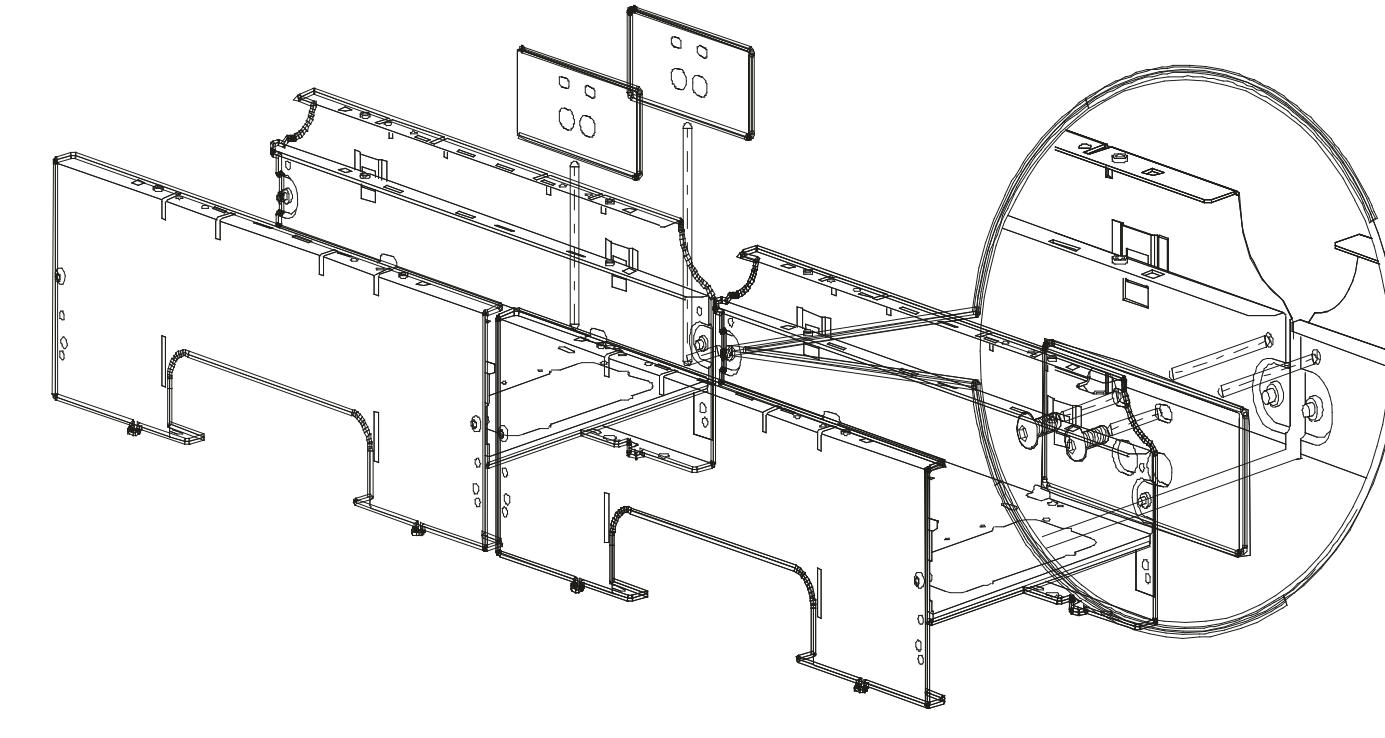
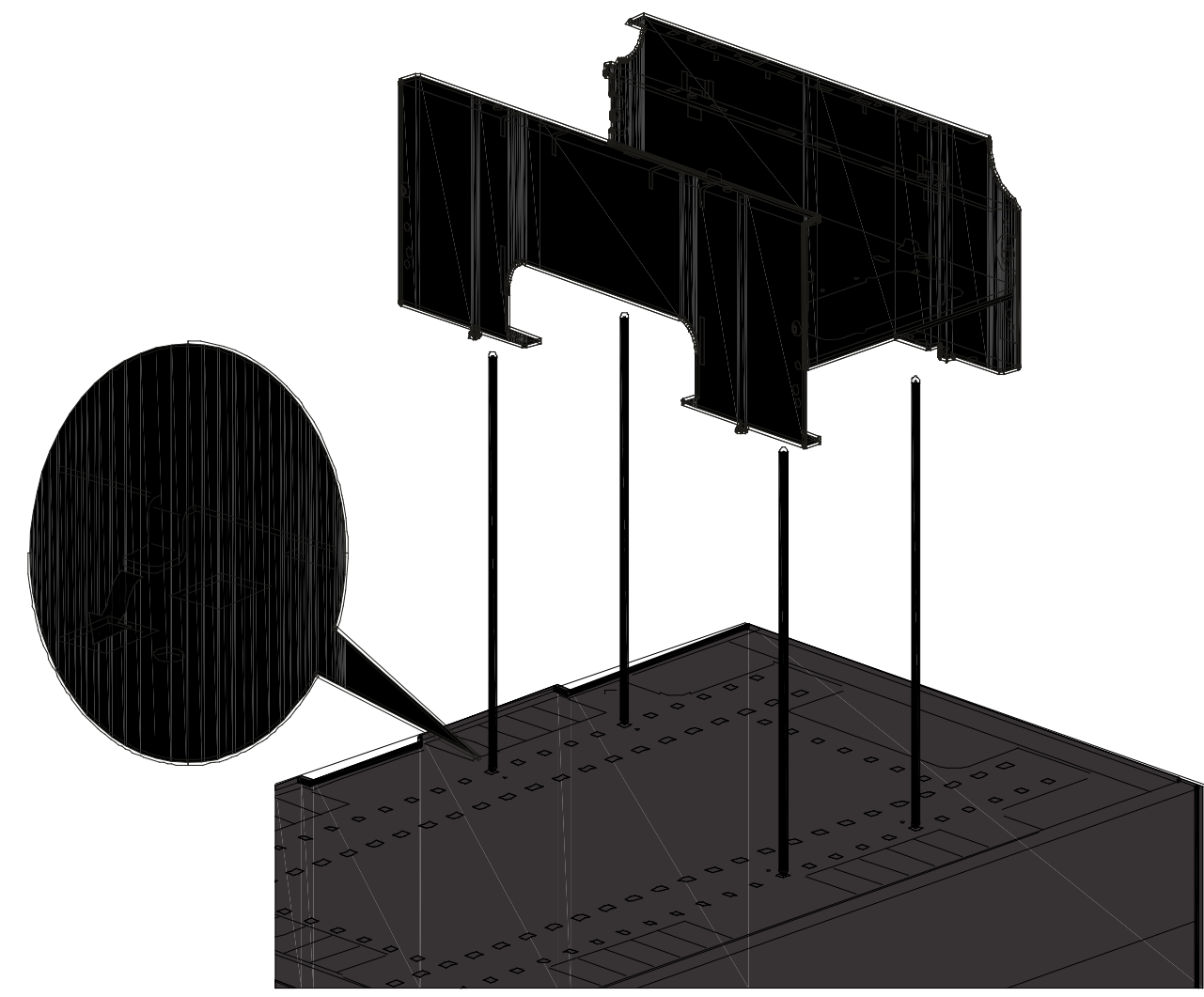
NOT TO SCALE



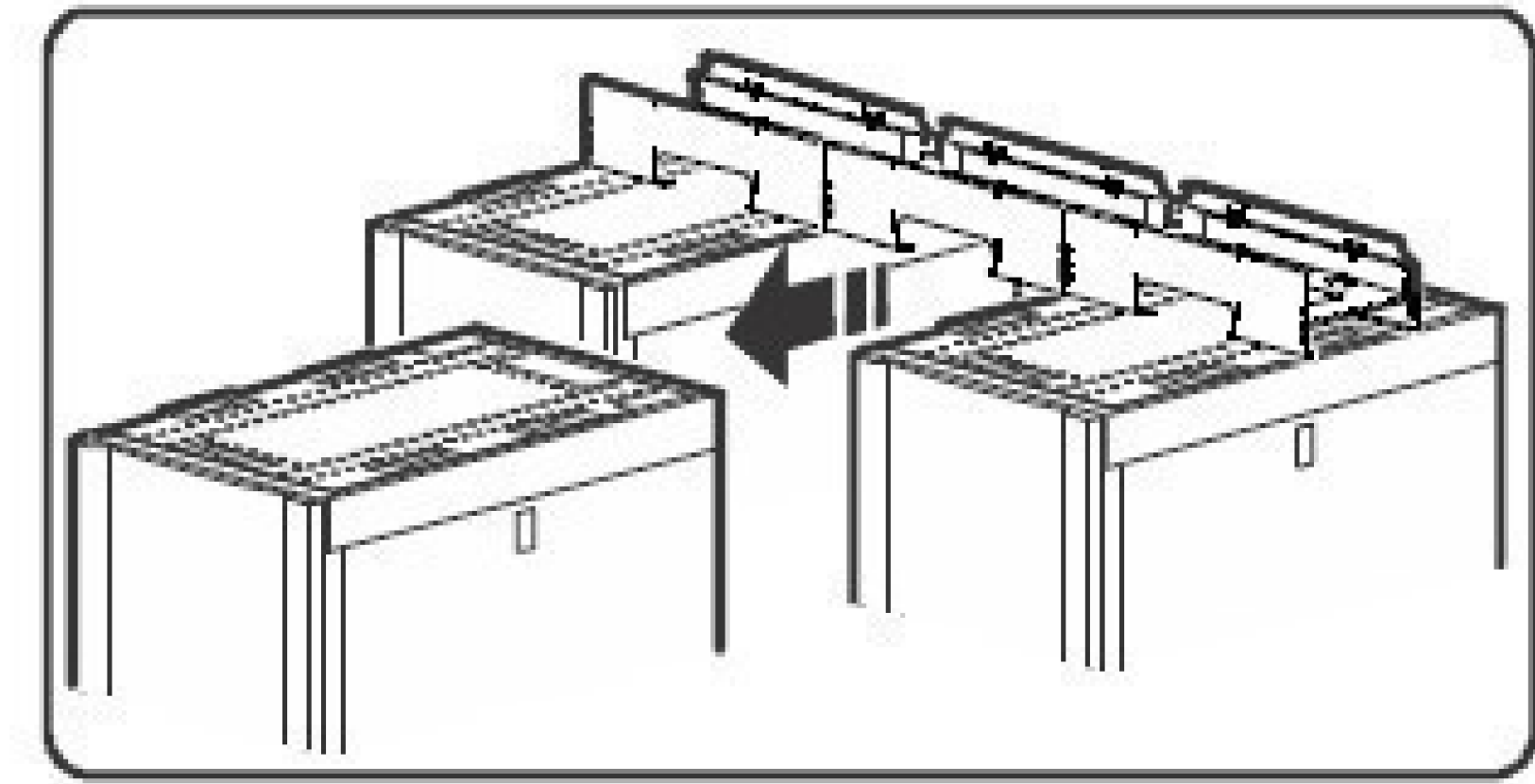
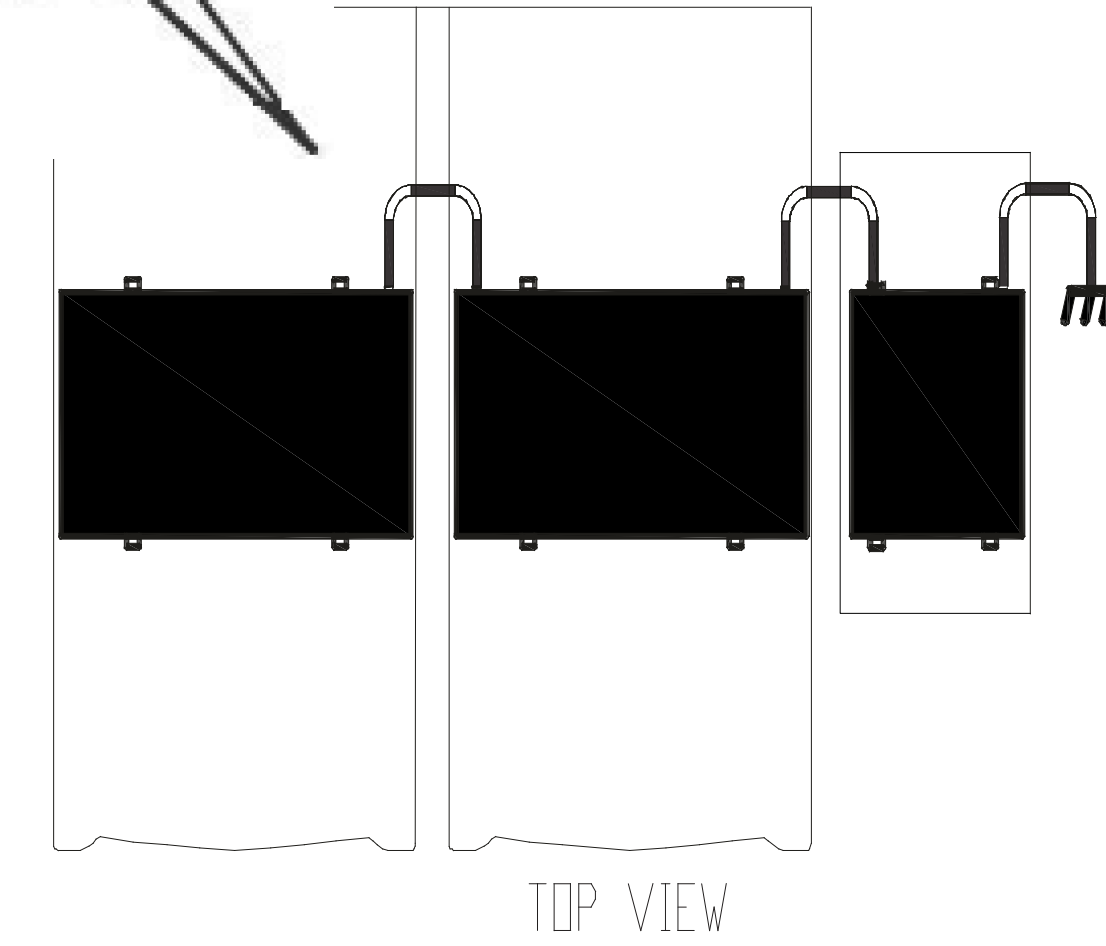
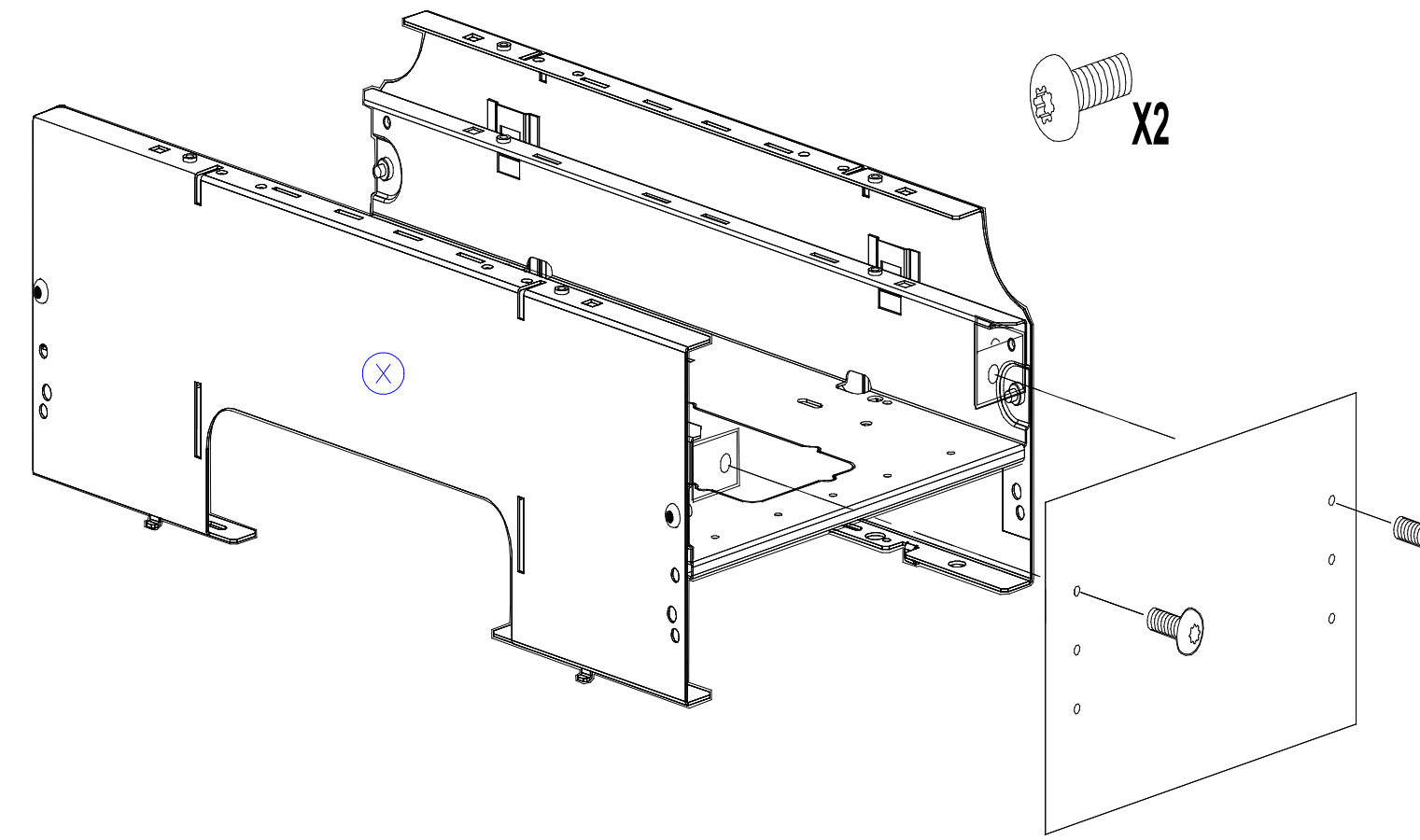
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Phone: (559) 600-5800

REVISIONS	BY



Torque  
8.7 to 9.4 N?m  
to 83 lb-in)



(X) = OWNER SUPPLIED  
CONTRACTOR INSTALLED

### NETWORK RACK AND POWER TRAY

NOT TO SCALE



DEPARTMENT OF  
INTERNAL SERVICES

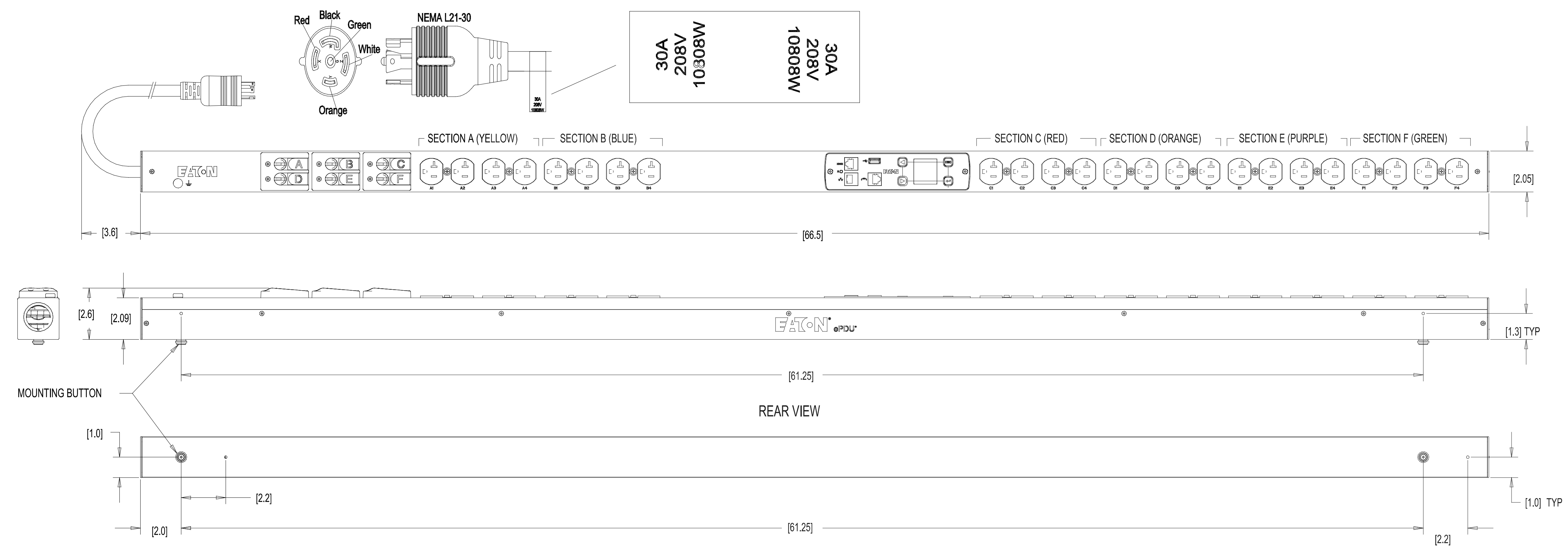
INTERNAL SERVICES DIVISION  
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Phone: (559) 600-5800

# FRESNO COUNTY SHERIFF SUBSTATION

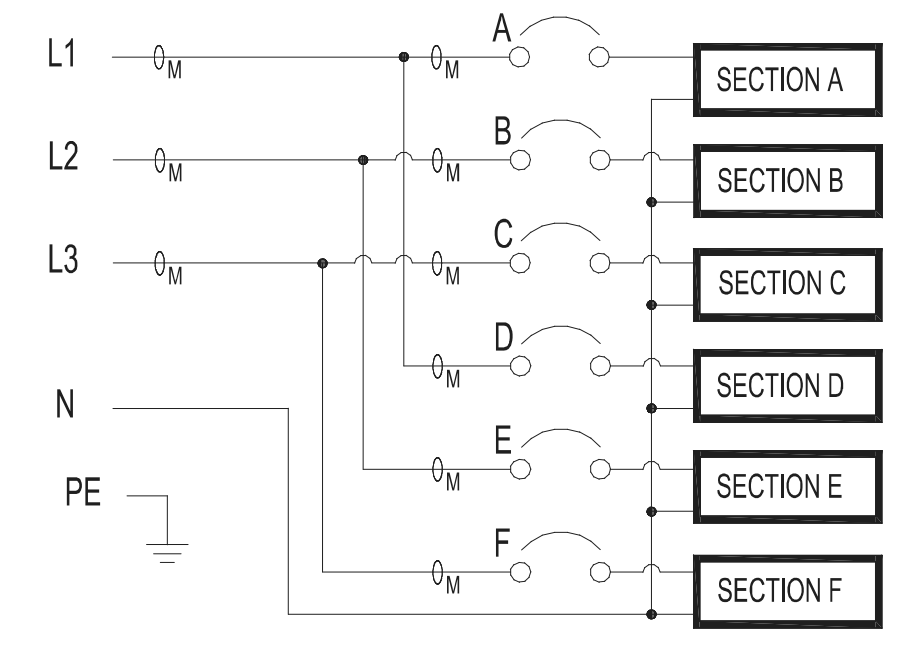
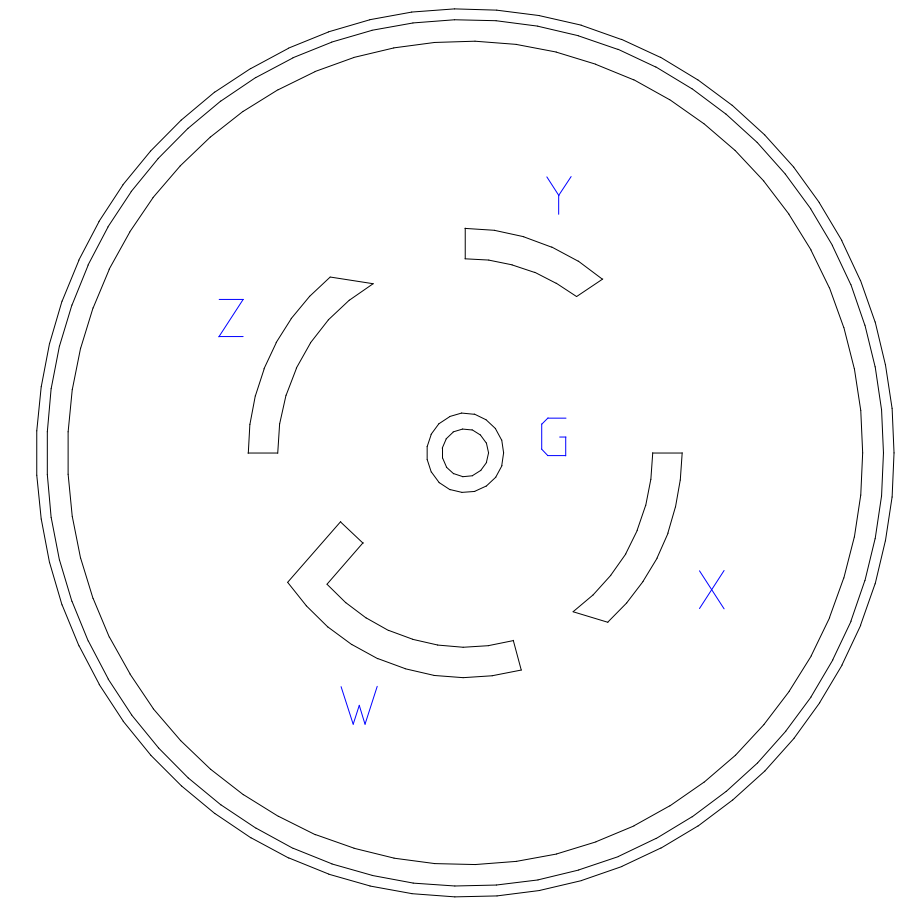
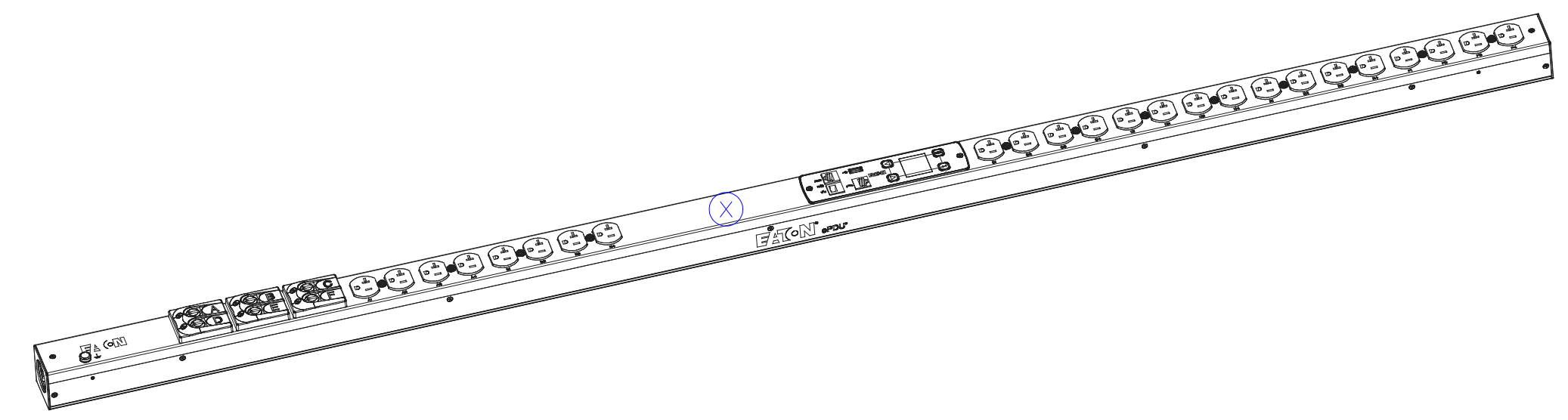
OWNER	ISD
MR	MR
CHIEF	CHIEF
DESIGNER	DESIGNER
DATE	01/21/2022
SCALE	AS NOTED
PROJECT NO.	ISD SHERIFF E9
SHEET	E9

E9

REVISIONS	BY



<b>EMI344-10 G3 METERED INPUT</b>		
<b>FUNCTIONALITY</b> CURRENT, POWER, AND ENERGY METERING FOR INPUT AND BRANCH	<b>INPUT</b> NEMA L21-30 PLUG 10FT 10AWG / 5C POWERCORD	<b>OUTPUT</b> 24) NEMA 5-20R
<b>MECHANICAL</b> 66.50" (1689mm) LENGTH 2.05" (52mm) WIDTH 2.09" (53mm) DEPTH ALUMINUM CHASSIS, BLACK	<b>INPUT RATING</b> 120-208V~ 3W+N+PE 24A 50/60HZ	<b>OUTPUT RATING</b> 120V~ 16A PER OUTLET 16A MAX PER SECTION 24A MAX PER PHASE
<b>CIRCUIT BREAKERS</b> 6) 20A 1-POLE LISTED	<b>CERTIFICATIONS</b> 	<b>ACCESSORIES</b> 013 - NETWORK EMP001 - ENVIRONMENTAL PROBE



CONTRACTOR TO PROVIDE  
FEED POWER CABLES  
AND L21-30R PER  
PAGE E2

= OWNER SUPPLIED  
CONTRACTOR INSTALLED

## RACK MOUNT PDU 3P L21-30P

NOT TO SCALE

# FRESNO COUNTY SHERIFF SUBSTATION



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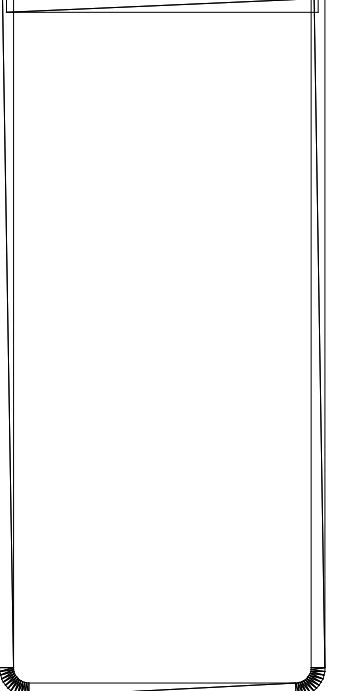
OWNER	ISD SHERIFF E10
MR	
ORDER	
BY	
DATE	01/21/2022
SCALE	AS NOTED
SHEET	

E10

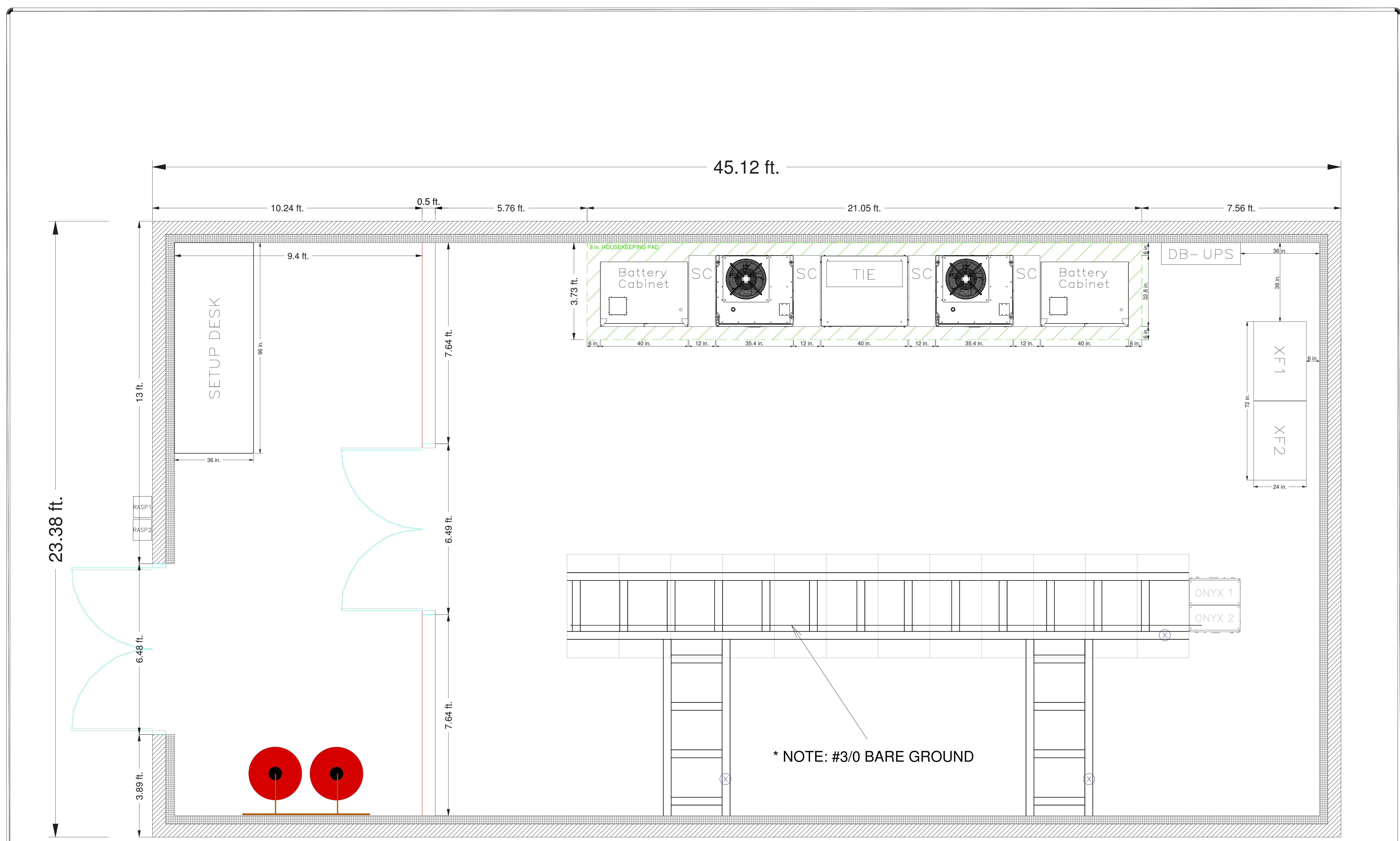


REVISIONS	BY

# FRESNO COUNTY SHERIFF SUBSTATION



OWNER	
MR	
ORDER	
NO	
DATE	01/21/2022
SCALE	AS NOTED
DRAWN BY	ISD SHERIFF E11
SHEET	
	E11



\* NOTE: #3/0 BARE GROUND

CONTRACTOR TO PROVIDE AND INSTALL OVERHEAD #3/0 GROUND WIRE

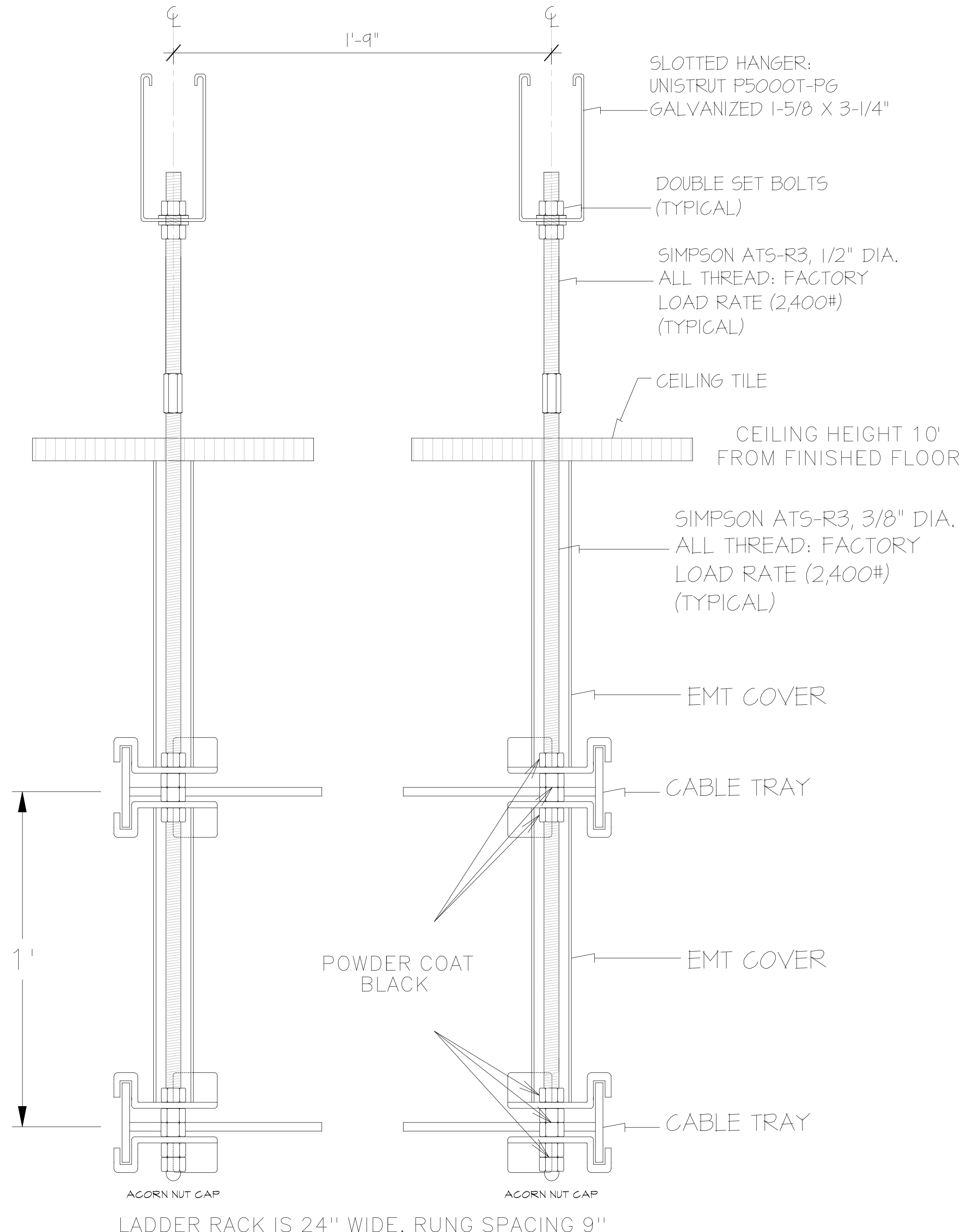
(X) = OWNER SUPPLIED  
CONTRACTOR INSTALLED

## LADDER RACK WITH GROUND BAR

NOT TO SCALE

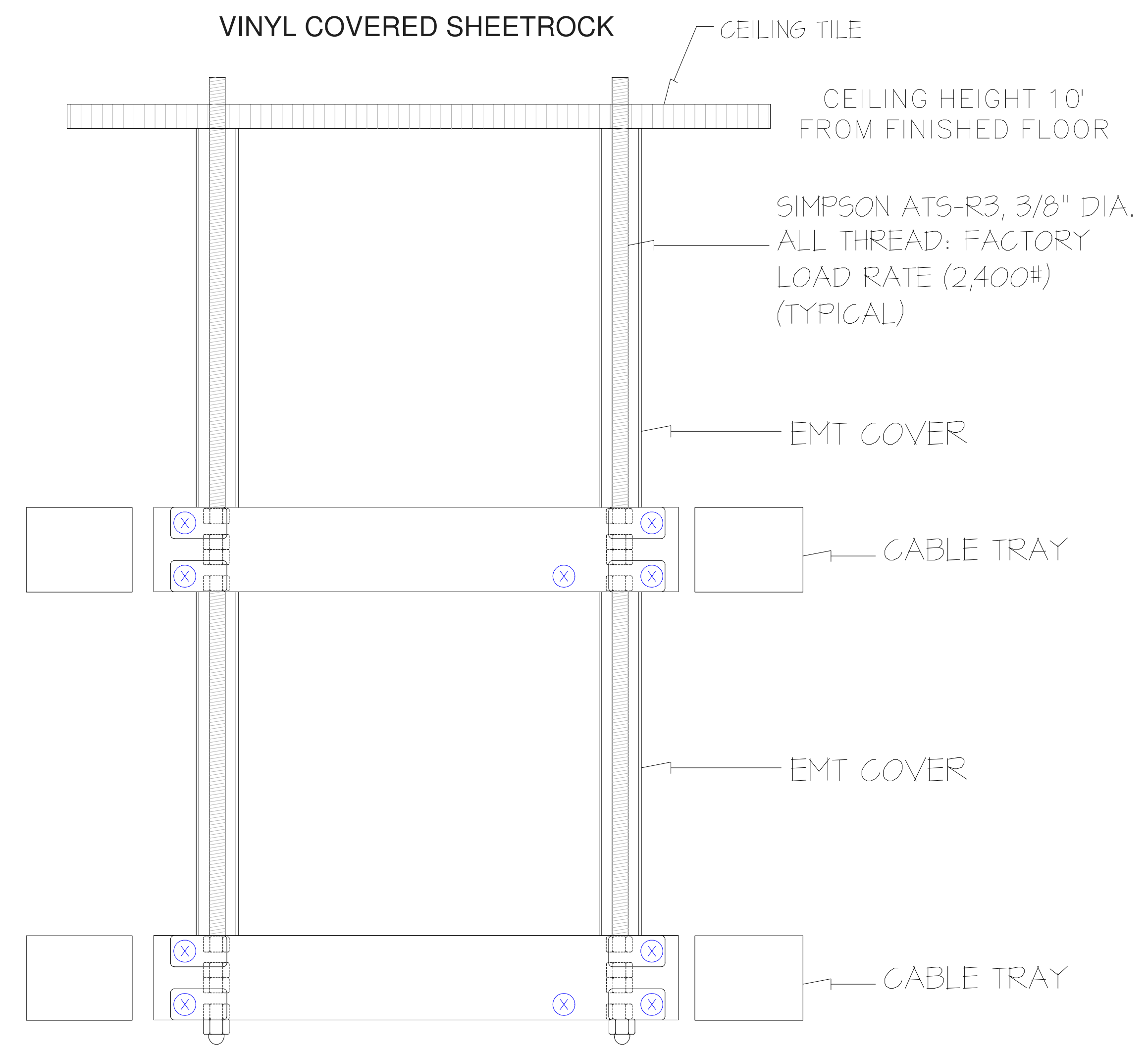
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Phone: (559) 600-5800

REVISIONS	BY



FRONT VIEW

- \* NOTE: T-BAR TO BE GASKETED
- \* NOTE: DO NOT DRILL INTO LADDER RUNGS



SIDE VIEW

(X) = OWNER SUPPLIED  
CONTRACTOR INSTALLED

**LADDER RACK SUPPORTING METHOD**

NOT TO SCALE



DEPARTMENT OF  
INTERNAL SERVICES

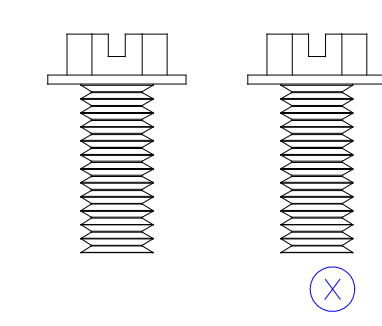
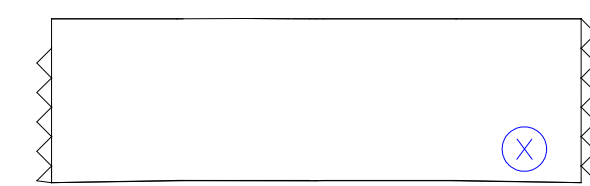
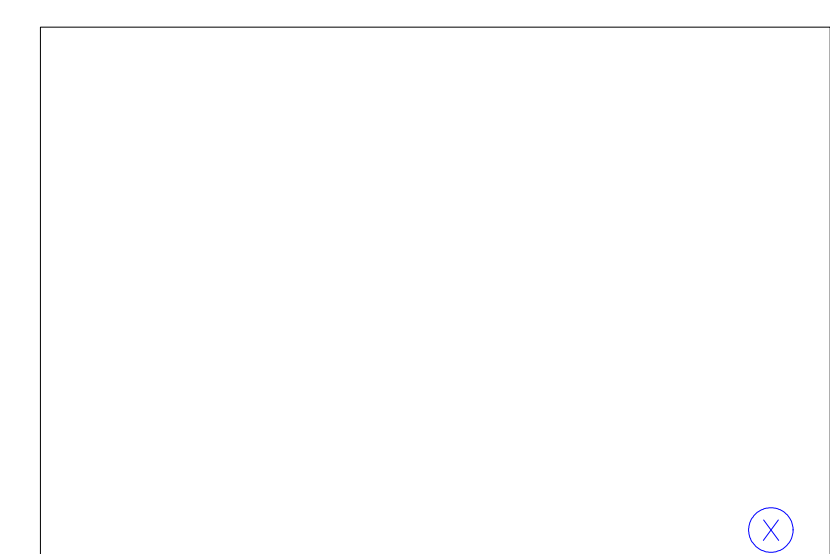
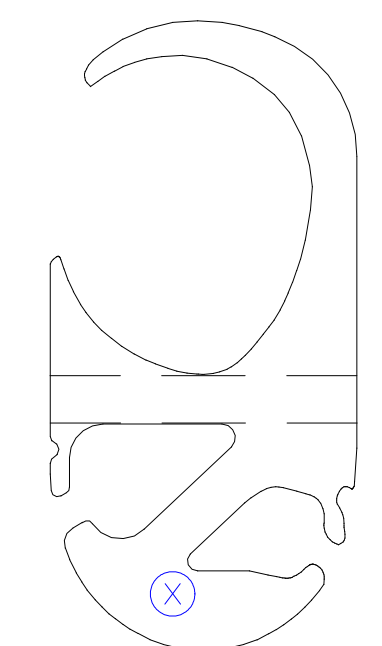
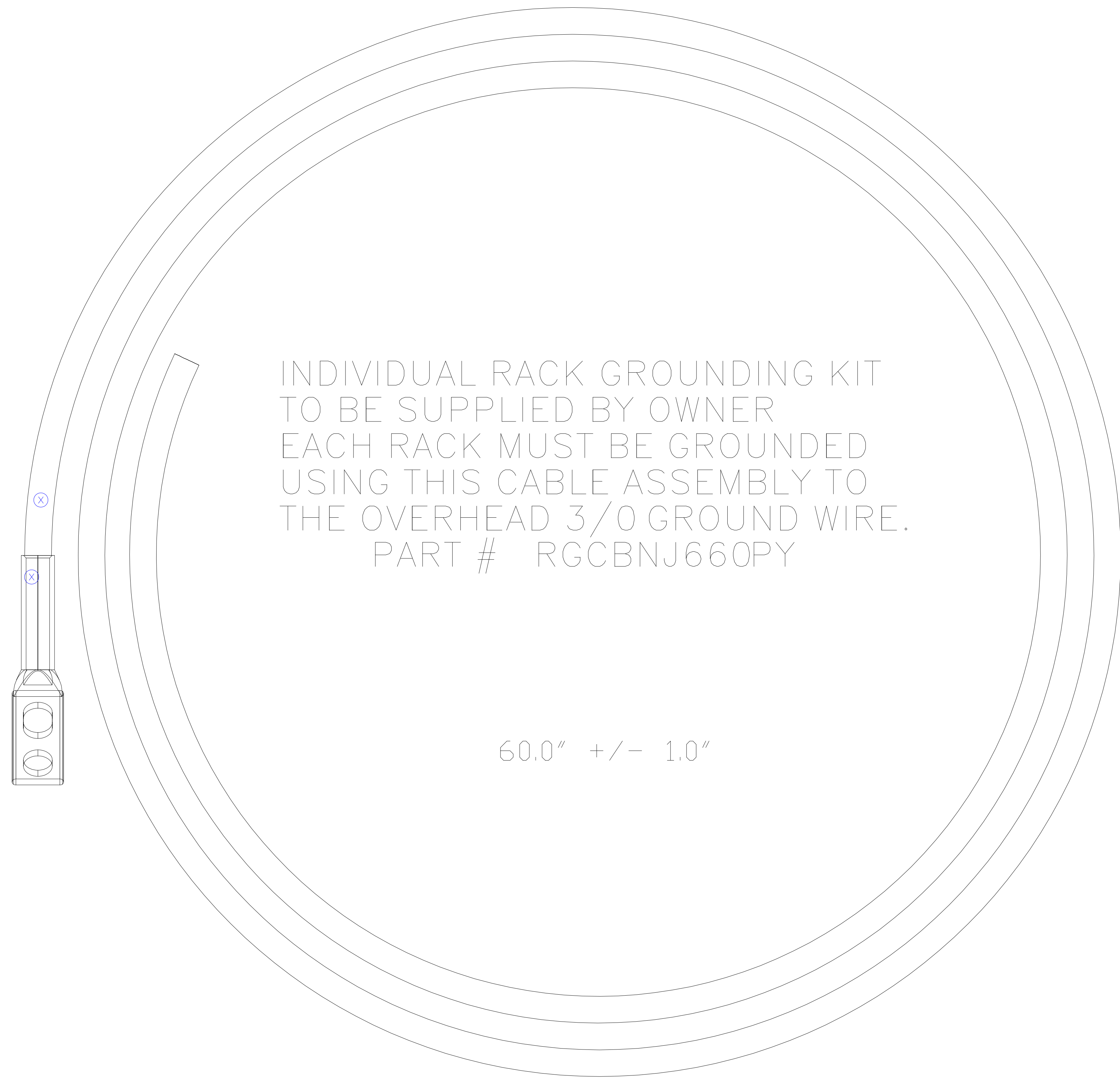
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Phone: (559) 600-5800

**FRESNO COUNTY SHERIFF SUBSTATION**

OWNER	MR
DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
PROJECT	ISD SHERIFF E12
SHEET	E12

REVISIONS	BY

**FRESNO COUNTY SHERIFF SUBSTATION**



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(X) = OWNER SUPPLIED  
CONTRACTOR INSTALLED

**RACK GROUNDING CABLE KIT**

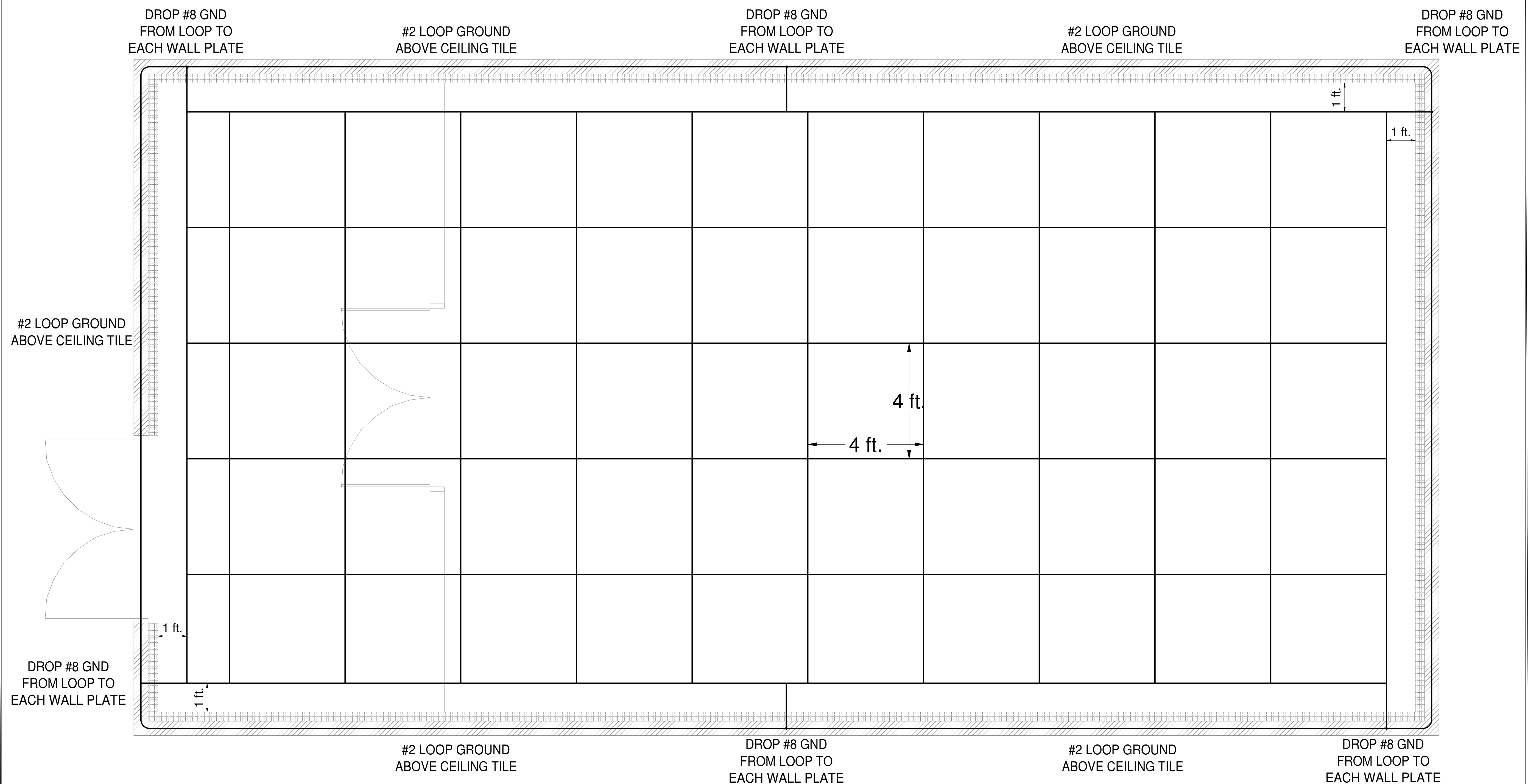
NOT TO SCALE

OWNER	MR
ORDER	BIB
DATE	01/21/2022
SCALE	AS NOTED
FIG. NO.	ISD SHERIFF E13
SHEET	

E13

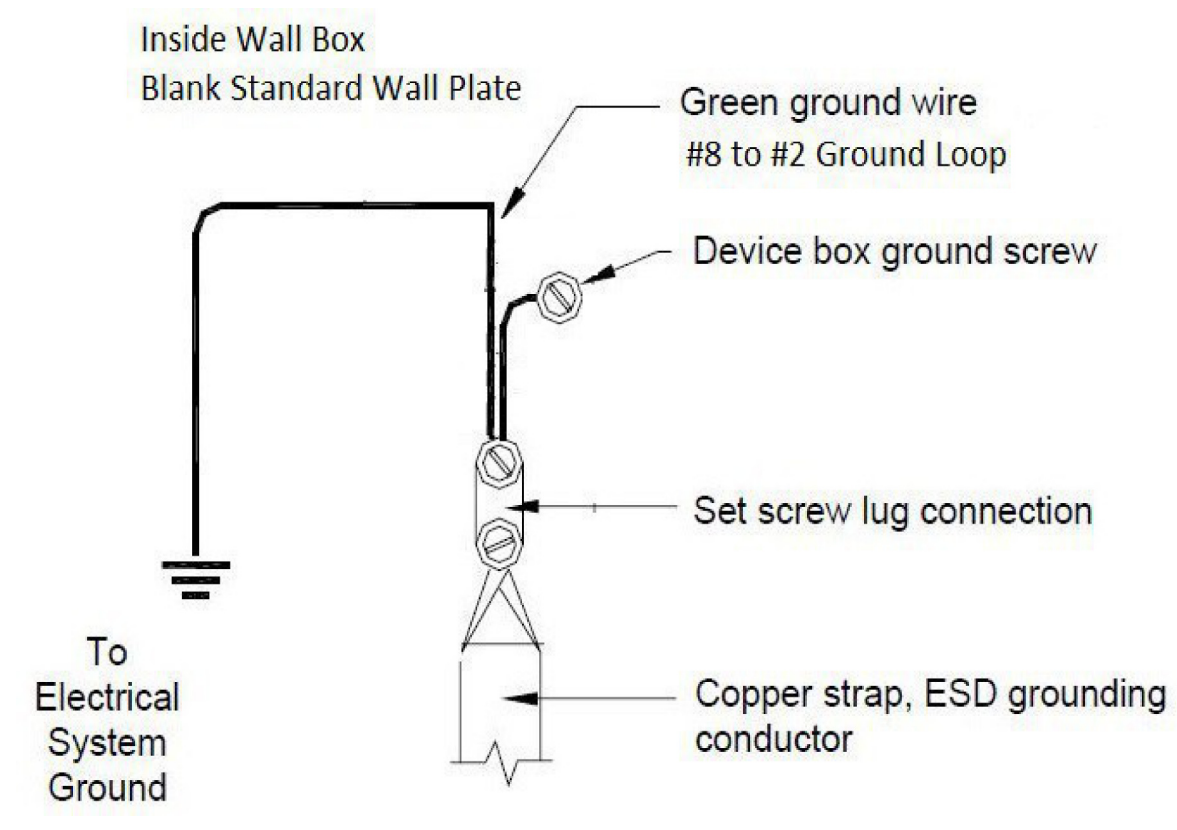
REVISIONS	BY

# FRESNO COUNTY SHERIFF SUBSTATION



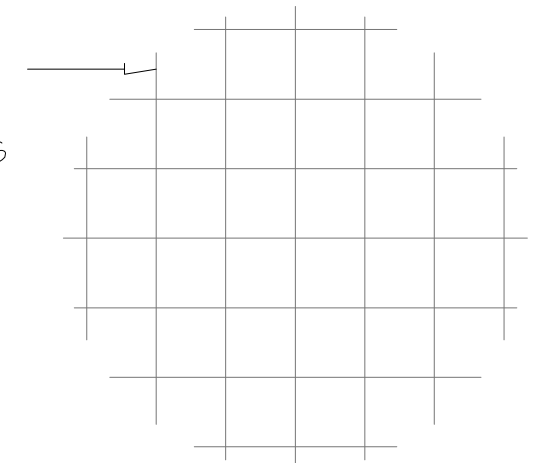
**\*NOTE: FLOOR TO BE TABLETOP FLAT**      **\*NOTE: SPECIAL COPPER SELF STICK UNDER TILE TAPE**

**INTERNAL SERVICES MUST BE ONSITE TO OVERSEE INSTALLATION OF UNDER FLOOR GROUND GRID**



### Data Center

ROOM FINISH:  
 FLOOR: ANTI-STATIC VINYL FLOOR TILES GROUNDED TO THE BUILDING GROUND PER MANUFACTURER'S REQUIREMENTS. COLOR SELECTED BY OWNER.  
 BASE (ENTIRE ROOM): 6" COVED RUBBER TOPSET. COLOR SELECTED BY OWNER.



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 Phone: (559) 600-5800

**ALL CONTRACTOR PROVIDED AND INSTALL**

## UNDER TILE GROUND GRID PLAN

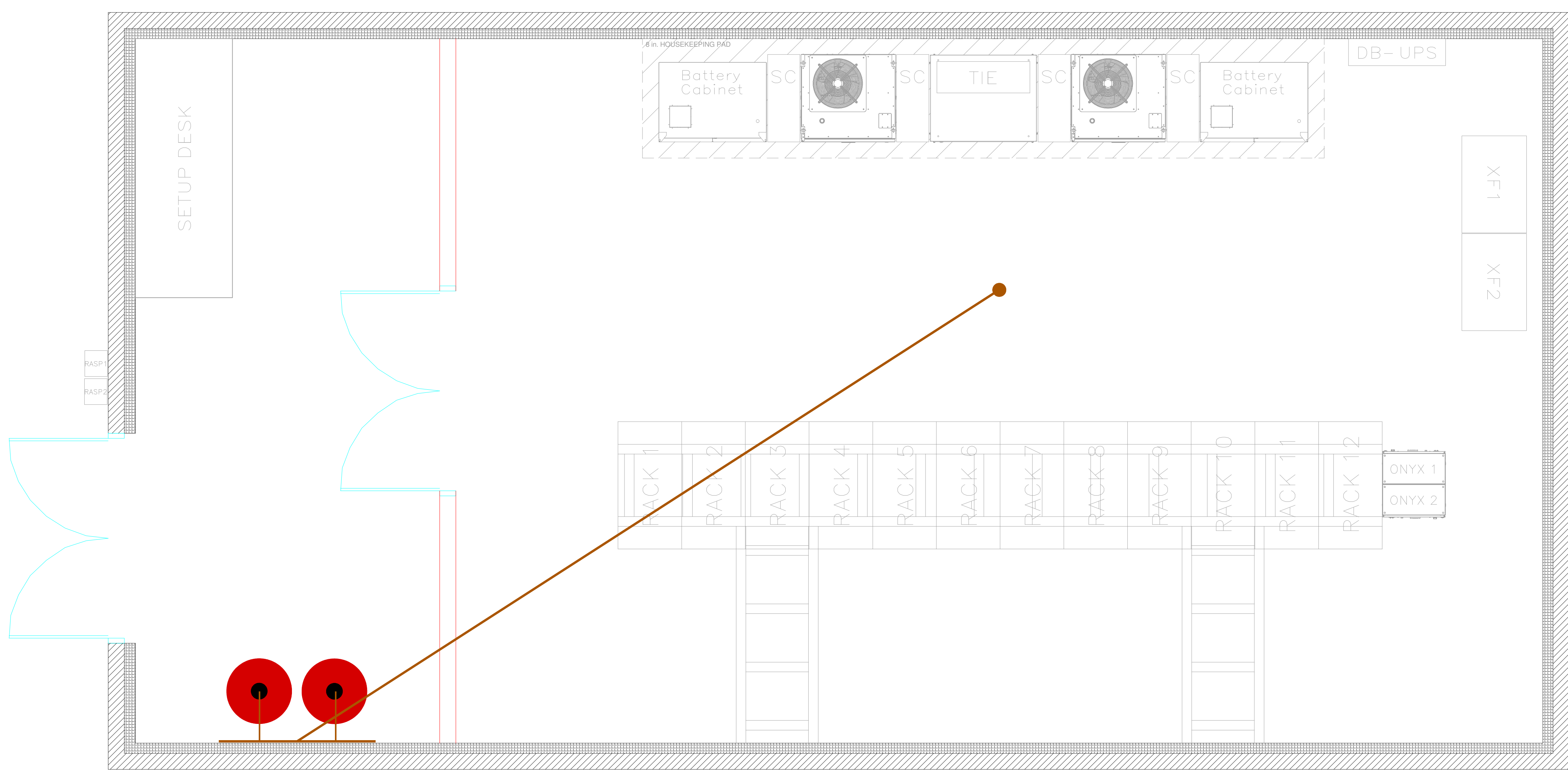
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DATE	BY
01/21/2022	AS NOTED

ISD SHERIFF E14

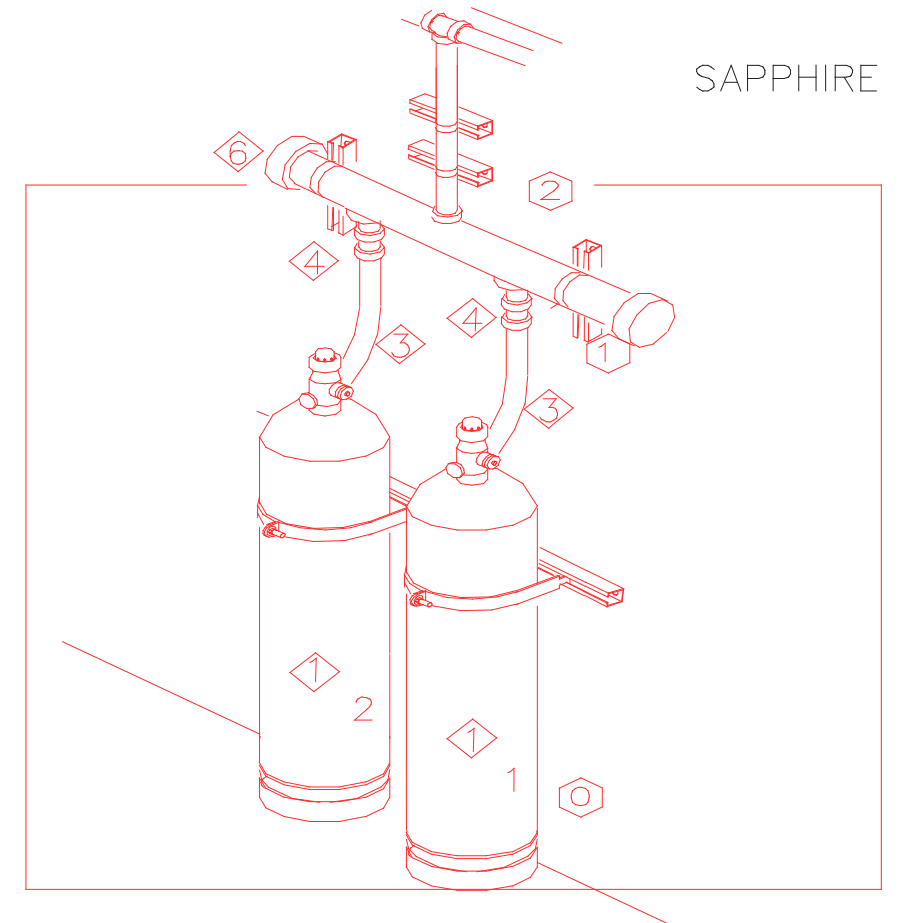
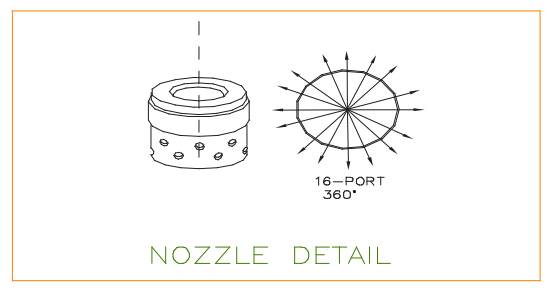
**E14**

REVISIONS	BY



\* NOTE: ROOM MUST BE GAS TIGHT

NOVEC 1230  
CLEAN AGENT  
(SAPPHIRE)



PART NO.	TANK SIZE	DM. A
570088	10 IN. (254 mm)	16.7 IN. (425 mm)
570092	18 IN. (457 mm)	23.6 IN. (600 mm)
570336	24 IN. (609 mm)	27.3 IN. (693 mm)

TANK SIZE	NO. OF CHANNELS	HEIGHT FROM BRACKET CENTERLINE
20 lb. (9.1 kg)	1	1.78 IN. (45 mm)
50 lb. (22.7 kg)	1	1.9 IN. (48 mm)
90 lb. (40.8 kg)	1	23 3/8 IN. (59 cm)
140 lb. (63.5 kg)	1	12 3/8 IN. (32 cm)
280 lb. (127 kg)	1	29 1/2 IN. (75 cm)
390 lb. (177 kg)	1	43 1/4 IN. (110 cm)
400 lb. (204 kg)	1	34 3/4 IN. (88 cm)
850 lb. (386 kg)	2	32 1/4 IN. TO 2 1/4 IN.

PART NO.	NOMINAL TANK SIZE (lb.)	TANK CAPACITY (lb.)	VALVE SIZE	DM. A (IN.)	DIAMETER (IN.)	APPROXIMATE EQUIP. WEIGHT (lb.)
570835	20 (9.1)	9 TO 21 (4 TO 9.5)	1 IN.	12 (30.4)	10 (25.4)	33 (15)
570836	50 (22.7)	20 TO 47 (9.1 TO 21)	1 IN.	19.8 (50.2)	10 (25.4)	41 (18.6)
570837	90 (40.8)	37 TO 86 (17 TO 40)	1 IN.	32.8 (83.3)	10 (25.4)	57.5 (26)
570838	140 (63.5)	58 TO 138 (26 TO 62.6)	2 IN.	23.5 (59.6)	18 (45.7)	108 (49)
570839	280 (127)	116 TO 280 (52.6 TO 127)	2 IN.	40.2 (102.1)	18 (45.7)	158 (71.1)
570840	390 (177)	161 TO 389 (72 TO 176)	2 IN.	53.3 (135.4)	18 (45.7)	198 (90)
570841	400 (204)	194 TO 459 (88 TO 204)	2 IN.	64.3 (163.4)	18 (45.7)	233 (106)
570888	850 (386)	375 TO 851 (170 TO 386)	3 IN.	57.7 (146.6)	24 (61.0)	456 (207)

**FRESNO COUNTY SHERIFF SUBSTATION**

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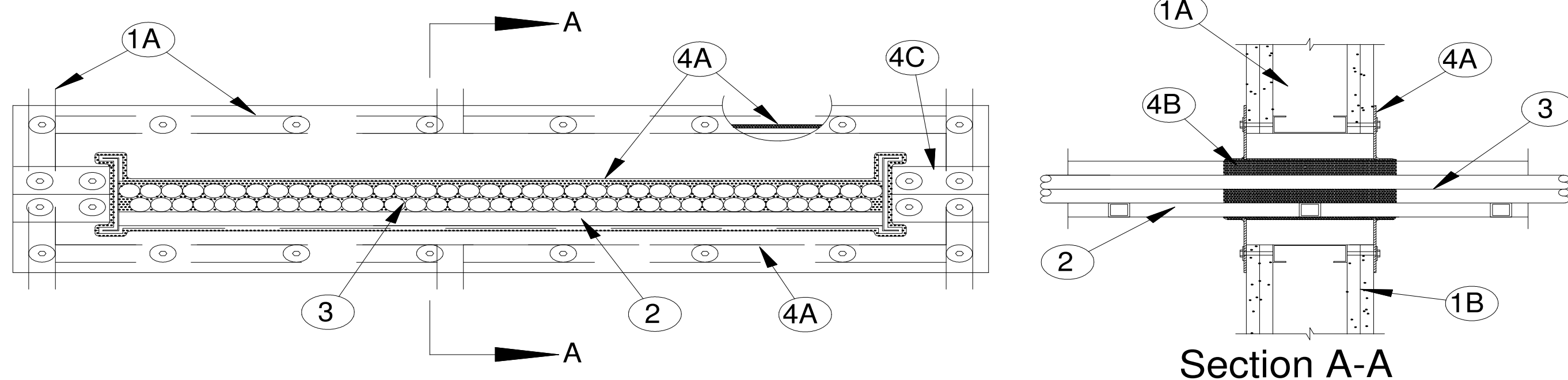
ALL CONTRACTOR PROVIDED AND INSTALL

**SERVER ROOM FIRE SUPPRESSION LAYOUT**

NOT TO SCALE

SWR
MFR
ORDER
DB
DATE
01/21/2022
SCALE
AS NOTED
DRAWN
ISD SHERIFF E15
SHEET
E15

**System No W L 4078**  
F Ratings - 1 and 2 Hr



1. Wall Assembly - The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:  
**A. Studs** - Wall framing shall consist of steel channel studs. Studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. Additional studs shall be installed horizontally to form a rectangular box around the through penetrants (Item 2).  
**B. Gypsum Board\*** - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. The opening shall be sized to be min 2 in. (51 mm) to max 4 in. (102 mm) wider and higher than the width and depth of the cable tray. Max area of opening is 320 sq in. (0.21 m<sup>2</sup>) with max dimension of 40 in. (1.02 m).  
 The hourly F Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.  
**2. Cable Tray\*** - Max 36 in. (914 mm) wide by max 4 in. (102 mm) deep open-ladder or solid-back cable trays with channel-shaped side rails formed of min 0.050 in. (1.3 mm) thick steel. Cable trays are provided with min 0.050 in. (1.3 mm) thick steel rungs spaced a max of 12 in. (305 mm) apart, or a min 0.050 in. (1.3 mm) thick steel solid back. The annular space between cable trays and edge of opening shall be a min of 1 in. (25 mm) to a max of 3 in. (76 mm). Cable tray to be rigidly supported on both sides of wall assembly.

**SpecSeal** SERIES LCI INTUMESCENT SEALANT

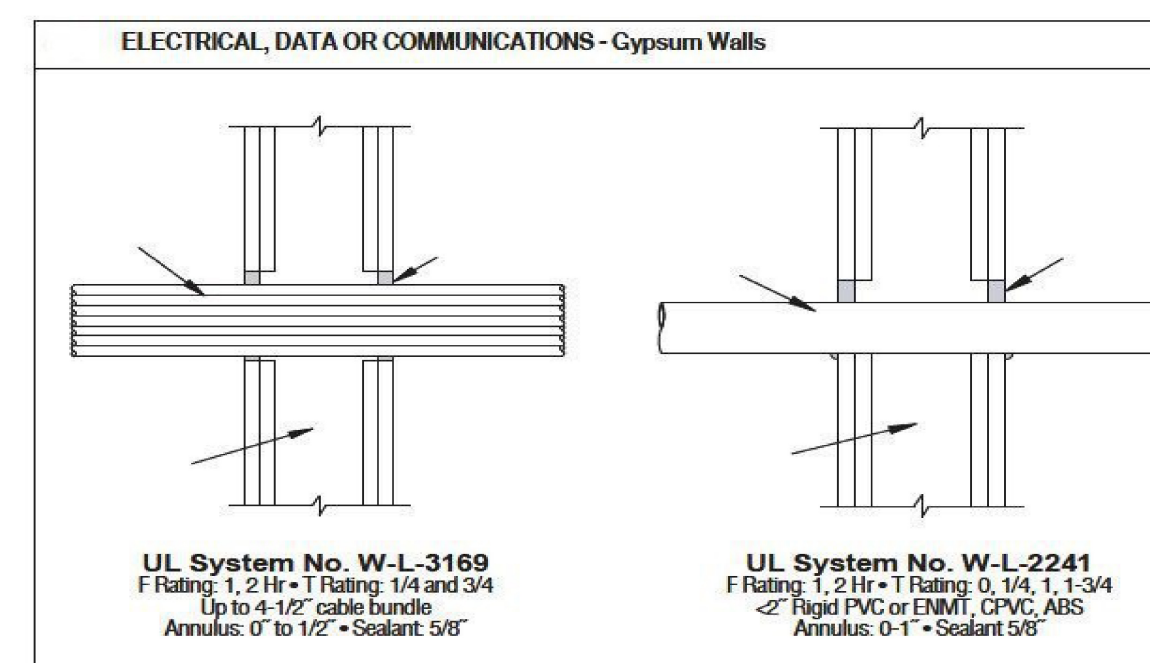
**APPLICATIONS**  
 SpecSeal® LCI Sealant has a broad application base designed to seal a wide variety of common penetrations and construction joints. Penetrant types include insulated and non-insulated metallic pipes and tubes, non-metallic pipes and tubes, and common electrical service and power distribution, telephone, data, and TV cabling. This product is also used in conjunction with other SpecSeal® Products such as SpecSeal® Firestop Collars and Wrap Strips to protect larger plastic pipes.

**PRODUCT DESCRIPTION**  
 SpecSeal® LCI Sealant is a versatile and economical intumescent sealant that has excellent caulking properties as well as high build properties on vertical or overhead surfaces. This single grade may be caulked (standard cartridge or bulk loaded), knifed or troweled. In addition, SpecSeal® LCI Sealant does not contain PCB's or asbestos.

SpecSeal® LCI Sealant is storage stable (when stored according to the manufacturer's recommendations), and will not separate or shrink when dried. SpecSeal® Series LCI Sealant will adhere to all common construction and penetrant materials and contains no solvents that might adversely effect plastic pipes or cable jackets.



- FEATURES**
- **Economical:** High performance without the high price!
  - **Highly Intumescent:** Expands up to 8 times.
  - **Excellent Smoke Seal**
  - **Water Resistant:** Will not re-emulsify when dry.
  - **Water-Based** for easy installation, cleanup, and disposal.
  - **Acoustically Tested:** Reduces noise transmission
  - **Safe...Low VOC's, No Solvents, Non-Halogenated**
  - **Paintable**



**TABLE A: APPLICATIONS**

TESTED AND CLASSIFIED FOR FIRE RESISTANCE

- Metallic Pipes including steel, iron, or copper pipe and tubing.
- Nonmetallic Pipes, Conduits & Tubing including PVC, CPVC, ABS, and PEX.
- Electrical & Electronic Cabling including service entrance, power distribution, computer, telephone, and television.
- Metal Ductwork including HVAC, bath and dryer vents.
- Insulated Pipes including heating, cooling, and condensation applications.
- Complete Wood Floor firestopping package for electrical, plumbing, HVAC, telephone, and television.

**SpecSeal** COMPOSITE SHEET

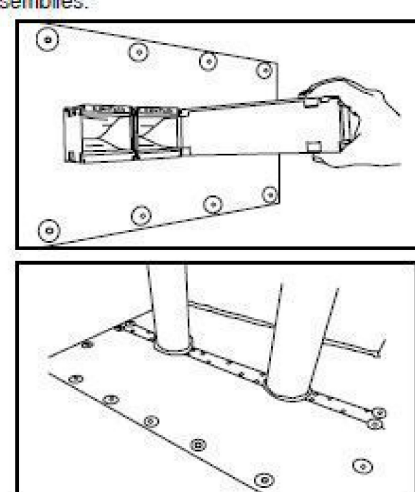
**APPLICATIONS**      **PRODUCT DESCRIPTION**

SpecSeal® Composite Sheet is used in conjunction with other STI Firestop Products to seal penetrations through both fire-resistance rated walls and floors for metallic and non-metallic pipes, insulated pipes, cable trays, cables, conduits, or blank openings. SpecSeal® Composite Sheet provides an effective seal against fire, smoke, and combustion byproducts for openings of any shape in common construction assemblies.

SpecSeal® Composite Sheet is a lightweight, rigid fire resistant panel consisting of an intumescent layer bonded to a galvanized steel sheet reinforced with steel wire mesh covered with aluminum foil. SpecSeal® Composite Sheet is designed to seal medium to large size openings with a variety of different penetrants in both fire-resistance rated floors and walls.

When exposed to temperatures in excess of 350°F (177°C), SpecSeal® Composite Sheet expands minimum 15x to form a dense insulative char that minimizes heat transfer.

- FEATURES**
- **Lightweight** for easy handling and fabrication and less hanging weight on walls
  - **Easy to cut** using sheet metal tools
  - **Highly Intumescent** - expands up to 15X
  - **Hole Reduction** - Used in conjunction with other SpecSeal® or EZ-PATH® Products for reducing large openings
  - **Versatile performer** for a wide range of complex applications
  - **Paintable**



**PHYSICAL PROPERTIES**

See Table A

**INSTALLATION INSTRUCTIONS**

**Blank Opening**

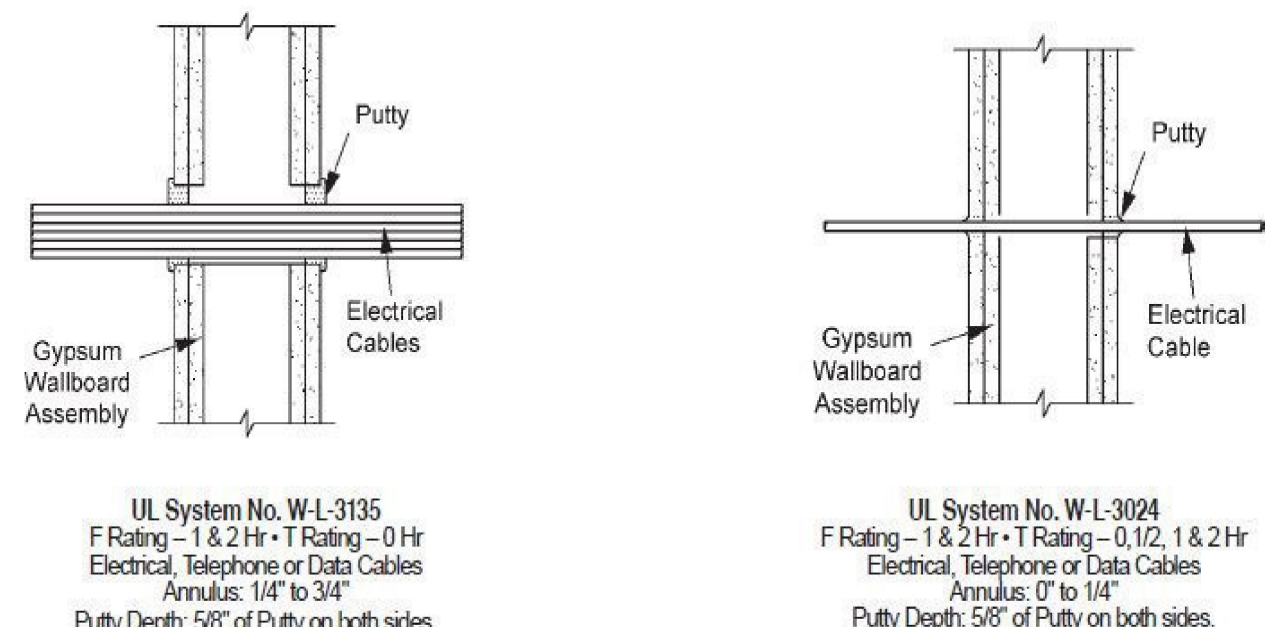
1. Apply 1/4" (6 mm) bead of SpecSeal® Sealant (Series SSS or Series LCI) or "rope" of SpecSeal® Firestop Putty (Series SSP) around the perimeter of the opening.
2. Position SpecSeal® Composite Sheet on top surface of floor or both surfaces of wall to overlap periphery of opening by 2" (51 mm). Galvanized steel sheet faces outward.
3. Secure SpecSeal® Composite Sheet to concrete surface using minimum 1-1/4" (31 mm) long by 1/8" (3.2 mm) diameter steel concrete screws in conjunction with nominal 1" (25 mm) diameter steel lender washers spaced 1" (25 mm) from each corner and 6" (152 mm) center-to-center. Install SpecSeal® Composite Sheet on both surfaces of wall.

TABLE A: PHYSICAL PROPERTIES	
Product Name:	SpecSeal® Composite Sheet
Nominal Thickness:	0.1 in. (2.5 mm)
Nominal Weight:	1.4 lb/ft <sup>2</sup> (6.9 kg/m <sup>2</sup> ) Intumescent
Expansion Begins:	350°F (177°C)
Volume Expansion:	15X (typical free expansion)
In-Service Temperature:	-10°F (-23°C) - 130°F (54°C)
Storage Temperature:	Less than 130°F (54°C)
Radiation Exposure:	Unaffected
Sheet Life:	N/A
VOC Content:	55 (Relates to specific construction)
STC Rating:	(ASTM E 90-04)

**Penetrant**

1. Apply 1/4" (6 mm) bead of SpecSeal® Sealant (Series SSS or Series LCI) or "rope" of SpecSeal® Firestop Putty (Series SSP) around the perimeter of the opening.
2. Apply 1" (25 mm) bead of SpecSeal® Sealant or "rope" of SpecSeal® Firestop Putty around the circumference of the penetrating item at its egress from the SpecSeal® Composite Sheet. For cable bundles and cable trays, force sealant/putty to max extent within interstitial space between cables and apply sealant/putty to a minimum 2" (51 mm) height with the SpecSeal® Composite Sheet installed at the midheight of the 2" (51 mm) high seal.
3. Position SpecSeal® Composite Sheet on top surface of floor or both surfaces of wall to overlap periphery of opening by 2" (51 mm). Cut sheet to follow contours of penetrating item tightly. Galvanized steel sheet faces outward.
4. Cover seams between penetrating items and between penetrating items and periphery of opening with steel sheet to span 2" (51 mm) beyond each side of the seam. Secure the sheet steel to the SpecSeal® Composite Sheet with No. 10 self-tapping, self-drilling steel sheet metal screws spaced 1 in. (25 mm) from each end and 6" (152 mm) center-to-center.
5. Secure SpecSeal® Composite Sheet to concrete surface using minimum 1-1/4" (31 mm) long by 1/8" (3.2 mm) diameter steel concrete screws in conjunction with nominal 1" (25 mm) diameter steel lender washers spaced 1" (25 mm) from each corner and 6" (152 mm) center-to-center. Install SpecSeal® Composite Sheet on both surfaces of wall.

**CABLE PENETRATIONS - GYPSUM BOARD WALLS**



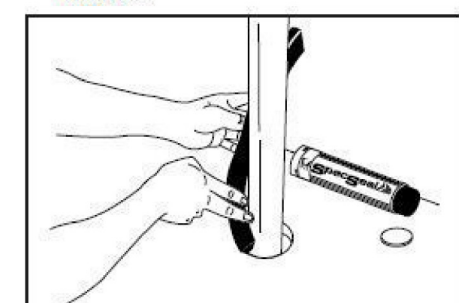
**SpecSeal** SERIES SSP PUTTY & PUTTY PADS

**APPLICATIONS**  
 SpecSeal® Series SSP Putty and Putty Pads are used to seal through-penetrations as well as construction gaps and blank openings. SpecSeal® Putty Pads are used to seal around electrical boxes to reduce sound transmission (see Technical Update) and increase fire resistance. These pads also provide a metered method of application when sealing through-penetrations and in some applications, are used to provide a cushion to allow movement due to settling, expansion and contraction, or vibration.

**PRODUCT DESCRIPTION**  
 SpecSeal® Series SSP Putty is a non-hardening, intumescent compound designed to seal through-penetrations as well as certain membrane penetrations against the spread of fire, smoke and toxic gases. SpecSeal® Putty expands up to eight times its original size when exposed to high temperatures or flames.

Requiring no tools, SpecSeal® Series SSP Putty is soft and pliable making it easy to install by hand packing into openings. Its aggressive adhesion makes it suitable for use with all common construction materials as well as cable jacketing and pipes. SpecSeal® Putty remains soft and easy to reuse or retrofit.

SpecSeal® Series SSP Putty Pads provide this same level of protection in a release lined pad for easy application to electrical boxes or other penetrants. The pad is conveniently sized to fit a typical 1-1/2" (38 mm) deep 4S box with no cutting or piecing required. Faced on both sides with a convenient poly liner, SpecSeal® Putty Pads are easily applied with no mess or excessive residue.



- FEATURES**
- **Non-Hardening** - Easy retrofit!
  - **Two Stage Intumescent** features aggressive expansion.
  - **Endothermic Fillers** absorb heat & release water.
  - **Highly Adhesive** formula Stays put. Allows movement.
  - **Soft & Pliable** for easy installation.
  - **No Water-Soluble Expansion Ingredients** means better water resistance!
  - **Sound Deadening!** Excellent sound attenuation properties. Reduces noise transmission.

**INSTALLATION INSTRUCTIONS**

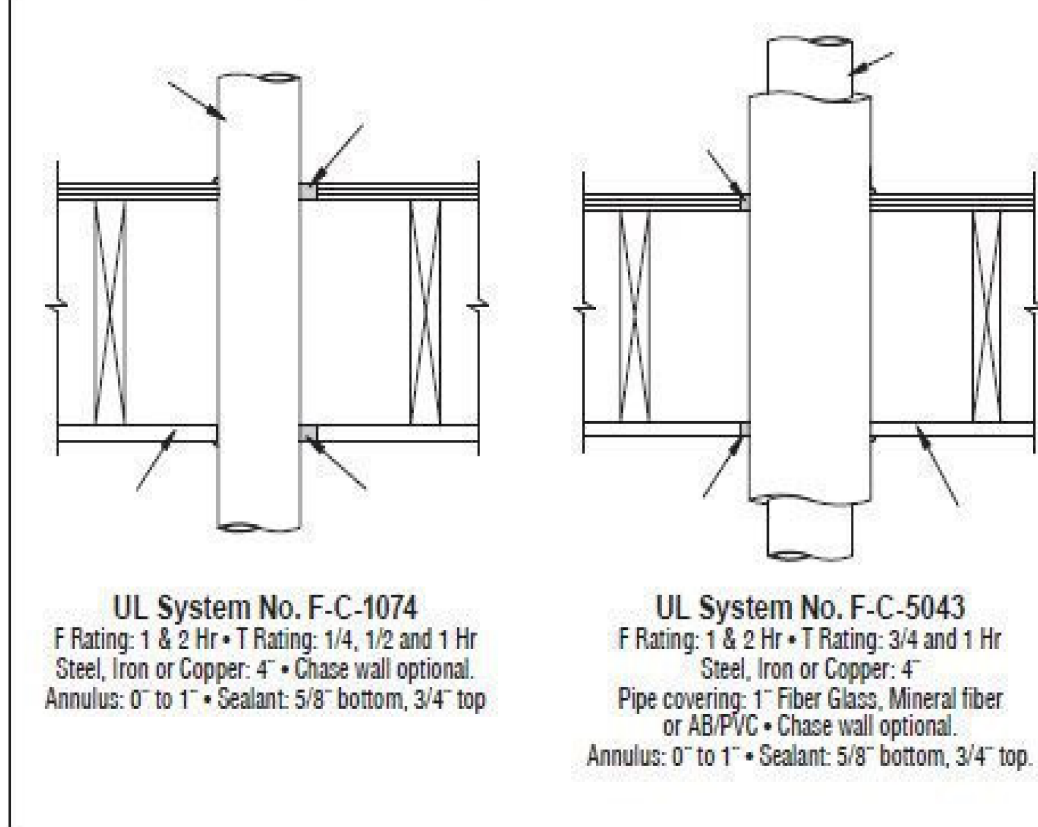
**GENERAL:** Areas to be protected must be clean and free of oil, loose dirt, rust or scale. Installation temperatures must be between 35°F (2°C) and 100°F (38°C). Allow product to dry a minimum of 24 hours before exposure to moisture.

**SYSTEM SELECTION:** Selection of an appropriate firestop system design is critical to the fire protection process. Space limitations preclude highly detailed information pertaining to individual application systems. Please consult the Product & Application Guide as well as the UL® Fire Resistance Directory for additional information.

**FORMING:** Some installations may require forming as either an integral part of the system or as an option to facilitate installation. In systems where forming is required, mineral wool batts with a minimum nominal density of 4 PCF (64 kg/m<sup>3</sup>) are generally required. Cut forming material oversize to allow for tight packing. Position forming material to allow for the proper depth of fill material.

**FILL MATERIAL:** SpecSeal® LCI Sealant may be installed by caulking using a standard caulking gun or from bulk containers using a bulk loading caulk gun, or by manually troweling using a mason's trowel or putty knife. If the sealant tends to pull back from a surface, clean the surface with a damp rag or sponge and reapply. Work sealant into all areas exercising care to eliminate voids or seams. The surface of the sealant can be smoothed using a putty knife dipped in water. Adding water to the sealant itself is not recommended. Sealant (when dry) may be painted using most non-solvent based paints.

**BARE & INSULATED METALLIC PIPES - Wood Floor Assemblies**



In gypsum wallboard penetrations, apply a minimum Cove bead of 1/4" (6 mm) at the interface of the penetrant with both exterior wall surfaces.

**SMOKE SEALING:** In some applications including firestop collars, SpecSeal® LCI Sealant is recommended as a smoke seal. It is suggested in these applications that the sealant be applied to both sides of walls. In floor applications, a sealing bead is suggested top and bottom.

**LIMITATIONS:** SpecSeal® LCI Sealant is water-based and cures through the evaporation of water. Low temperatures as well as high humidity may retard drying. Non-porous or impermeable backing materials, plates, or coatings may retard the drying process. Do not paint or seal in any way that prevents contact with air until sealant has dried through completely. This product has been designed to be safe with plastics and has been used extensively and successfully with a variety of different types of plastic pipes, tubes, and plastic cable insulations. Variations in these materials however, make it impossible to guarantee compatibility. STI strongly recommends that the user consult with the manufacturer of the pipe, tubing, or cable in question regarding any known sensitivities or potential restrictions before applying this product.

COMPUTER ROOM MUST BE SEALED AIR TIGHT.  
 A DOOR FAN TEST WILL BE USED, AND IF IT FAILS  
 THE CONTRACTOR MUST SEAL THE ROOM TO PASS.

**FIRE SERVER ROOM SEALING**

NOT TO SCALE



DEPARTMENT OF  
INTERNAL SERVICES

INTERNAL SERVICES DIVISION  
 333 W. Pontiac Way, Building 6, Clovis, California 93612  
 Phone: (559) 600-5800

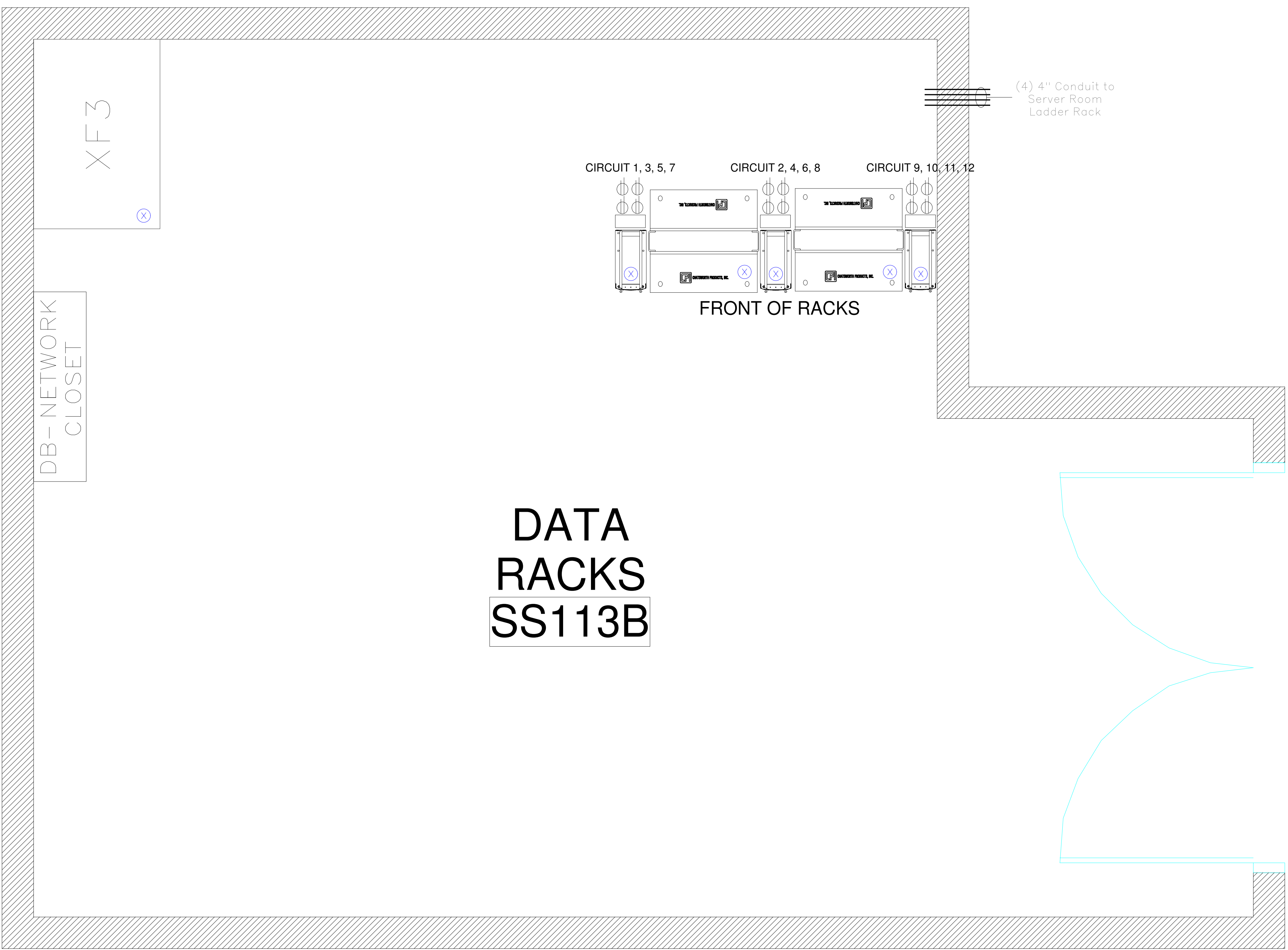
ALL CONTRACTOR PROVIDED AND INSTALL

REVISIONS	BY

FRESNO COUNTY SHERIFF SUBSTATION

OWNER	MR
ORDER	BB
DATE	01/21/2022
SCALE	AS NOTED
DRAWN	ISD SHERIFF E16
SHEET	E16

REVISIONS	BY



**FRESNO COUNTY SHERIFF SUBSTATION**



DEPARTMENT OF  
INTERNAL SERVICES

INTERNAL SERVICES DIVISION  
333 W. Pontiac Way, Building 6, Clovis, California 93612  
Phone: (559) 600-5800

(X) = OWNER SUPPLIED  
CONTRACTOR INSTALLED

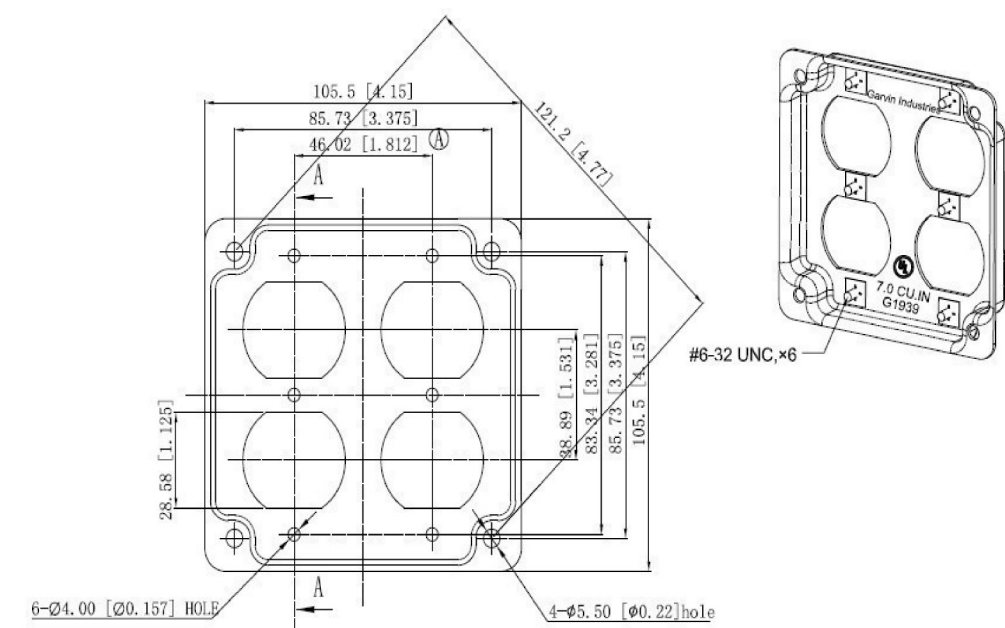
**NETWORK CLOSET LAYOUT**

NOT TO SCALE

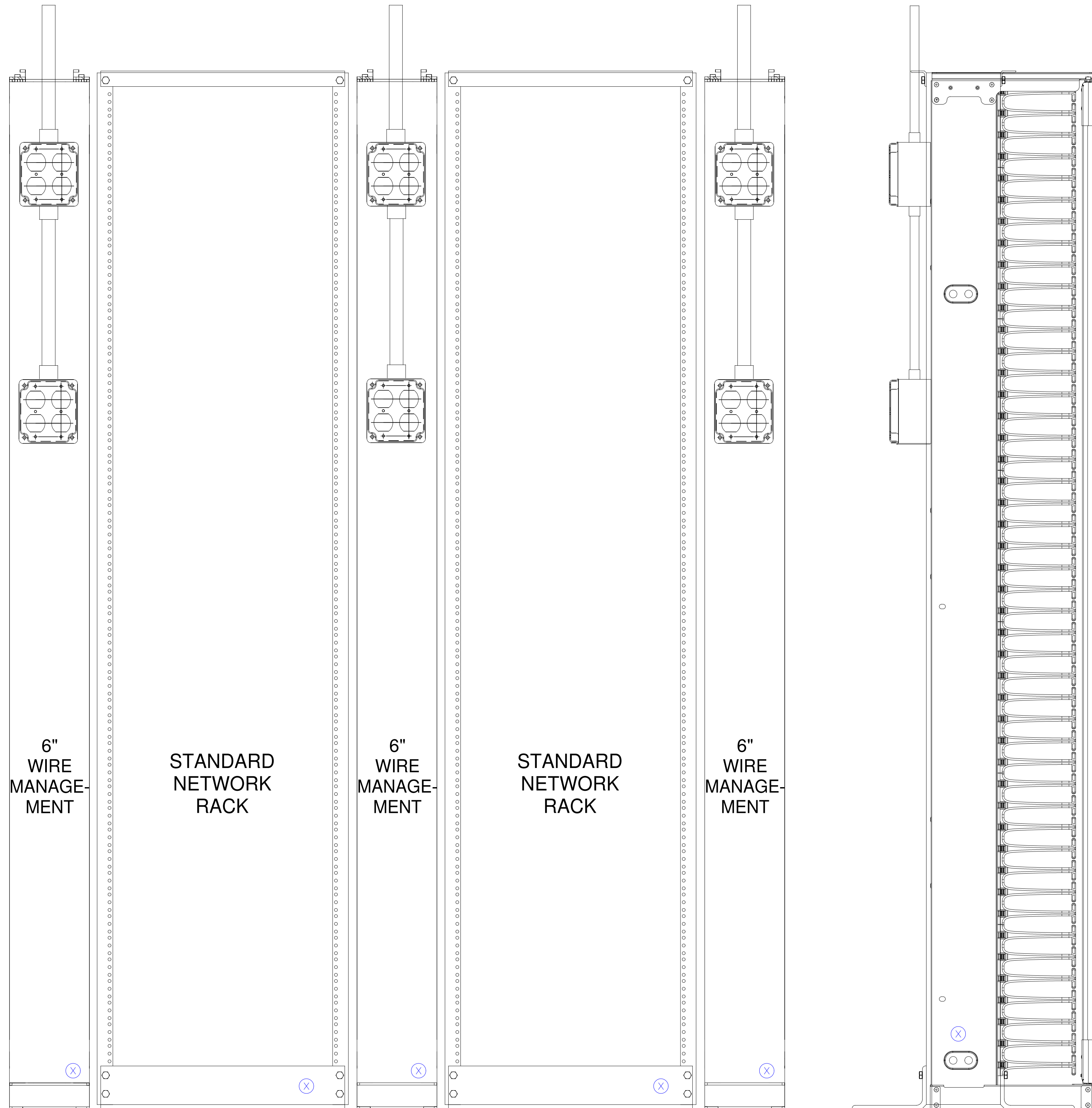
OWNER	MR
DESIGNED BY	DB
DATE	01/21/2022
SCALE	AS NOTED
PROJECT NO.	ISD SHERIFF E17
SHEET	E17

**CHATSWORTH PRODUCTS**  
 www.Chatsworth.com  
 (800) 834-4969  
**EVOLUTION  
 CABLE MANAGER, g1  
 6"W x 84"H**  
 PART NO: **35511-x03**

4" SQUARE INDUSTRIAL "GARVIN" COVERS



CONTRACTOR TO PROVIDE  
 AND INSTALL ELECTRICAL  
 BOXES, CONDUITS, WIRING,  
 AND OUTLETS



⊗ = OWNER SUPPLIED  
 CONTRACTOR INSTALLED

**INDIVIDUAL RACK VIEW WITH POWER OUTLETS AND VERTICAL WIRE MANAGEMENT 6"**

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**FRESNO COUNTY SHERIFF SUBSTATION**



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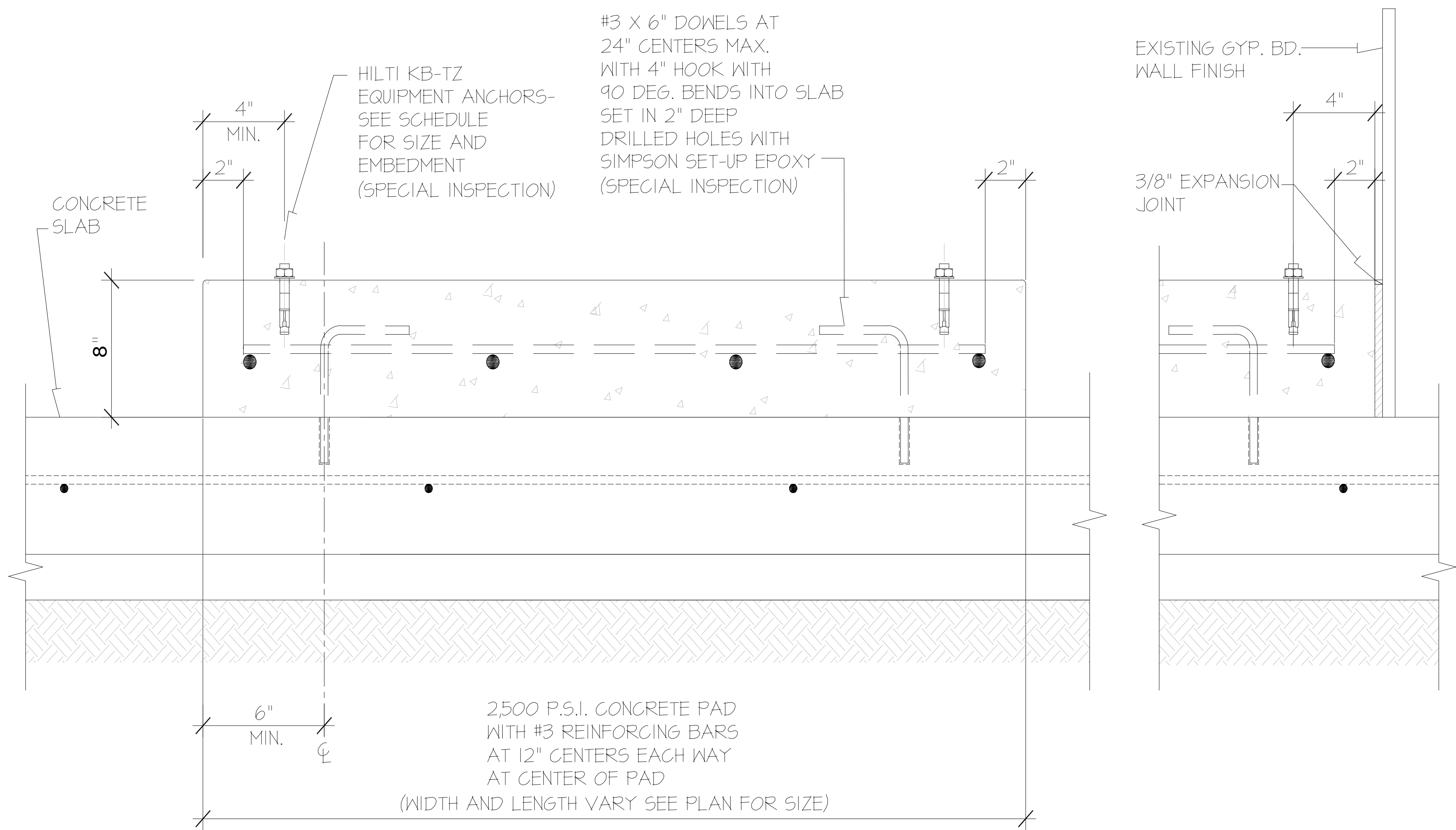
OWNER	MR
ORDER	518
DATE	01/21/2022
SCALE	AS NOTED
DRAWN	ISD SHERIFF E18
SHEET	

E18

NOT TO SCALE



REVISIONS	BY



## Housekeeping Pads Anchor Schedule

SEE PLAN FOR EQUIPMENT LOCATION  
 NOTE: MINIMUM EDGE CLEARANCE FROM VERTICAL FACE OF EQUIPMENT AND HOUSEKEEPING PADS FOR ALL EMBEDDED ANCHORS: 4" MINIMUM

- MARK EQUIPMENT
- 9A** UPS:  
L= 35.4", W= 32.8", H= 80.6" - ANCHOR WITH (4) 5/8" DIA. HILTI KB- TZ WITH 3- 1/8" MIN. EMBED. 60 FT. LB. TORQUE (SPECIAL INSPECTION)
  - 9B** BATTERY CABINET:  
L= 40.0", W= 29.5", H= 78.7" - ANCHOR WITH (4) 5/8" DIA. HILTI KB- TZ WITH 3- 1/8" MIN. EMBED. 60 FT. LB. TORQUE (SPECIAL INSPECTION)
  - 9C** BATTERY CABINET:  
L= 40.0", W= 29.5", H= 78.7" - ANCHOR WITH (4) 5/8" DIA. HILTI KB- TZ WITH 3- 1/8" MIN. EMBED. 60 FT. LB. TORQUE (SPECIAL INSPECTION)
  - 9D** TIE CABINET:  
L= 38.0", W= 33.0", H= 80.6" - ANCHOR WITH (4) 5/8" DIA. HILTI KB- TZ WITH 3- 1/8" MIN. EMBED. 60 FT. LB. TORQUE (SPECIAL INSPECTION)

**CONCRETE PAD MUST BE TABLETOP FLAT  
ACROSS ENTIRE SURFACE OF HOUSEKEEPING PAD**

**ALL CONTRACTOR PROVIDED AND INSTALL**

 **DEPARTMENT OF  
INTERNAL SERVICES**  
  
INTERNAL SERVICES DIVISION  
333 W. Pontiac Way, Building 6, Clovis, California 93612  
Phone: (559) 600-5800

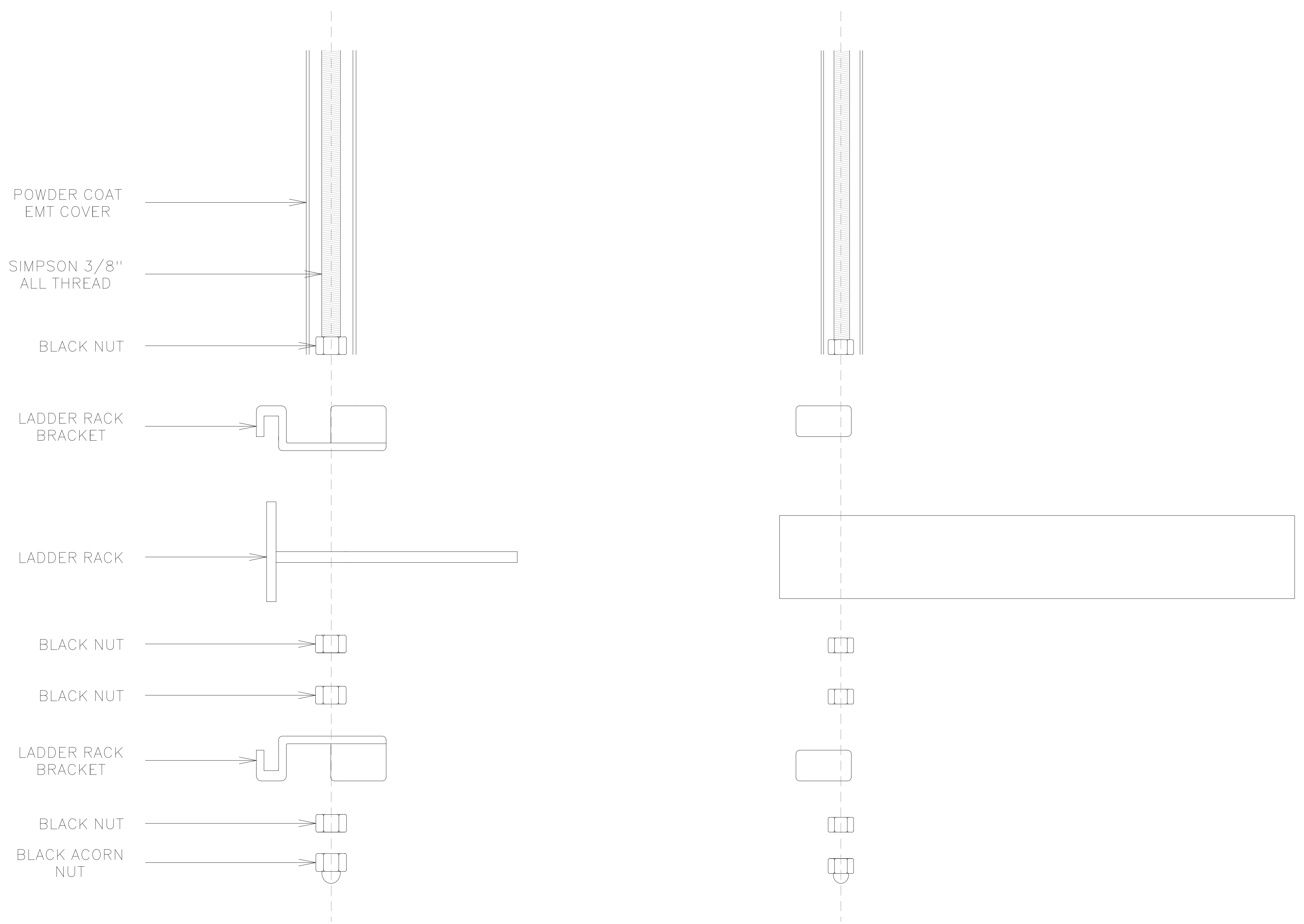
## DATA CENTER HOUSEKEEPING PAD

NOT TO SCALE

**FRESNO COUNTY SHERIFF SUBSTATION**

OWNER	MR
DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
PROJECT	ISD SHERIFF E19
SHEET	E19

REVISIONS	BY



FRONT VIEW

SIDE VIEW

**FRESNO COUNTY SHERIFF SUBSTATION**



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Phone: (559) 600-5800

**LADDER RACK SUPPORTING METHOD EXPANDED VIEW**

NOT TO SCALE

OWNER	MR
DESIGNED BY	BB
DATE	01/21/2022
SCALE	AS NOTED
DRAWING NO.	ISD SHERIFF E20
SHEET	E20